FISHERY MARKET NEWS

APRIL 1945

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WASHINGTON

UNITED STATES
DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary

FISH AND WILDLIFE SERVICE
IRA N. GABRIELSON, Director

FISHERY MARKET NEWS

A REVIEW OF CONDITIONS AND TRENDS OF THE FISHERY INDUSTRIES
PREPARED IN THE DIVISION OF COMMERCIAL FISHERIES

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FIELD METHOD FOR DETERMINATION OF THE OIL CONTENT OF FISH LIVERS

By F. Bruce Sanford,* Manuel Cantillo,** and Glenn C. Bucher*

The lack of sufficiently rapid and simple field methods for the determination of the oil and vitamin A contents of fish livers has prevented the universal adoption of the preferred practice of selling livers on the basis of actual analysis. A complete determination of the vitamin value of a shipment of livers involves three separate operations; efficient procedures are already available for two of these operations. The procurement of a homogeneous, representative sample is adequately handled by use of the electrically-operated sampler developed by the Seattle Technological Laboratory;1/ and rapid field methods for the determination of vitamin A in an oil sample have been devised;2/ but no practical field procedure for extracting and estimating the quantity of oil in the livers has been available. A procedure which has been developed in the Seattle Technological Laboratory, and is described briefly here, may fill this gap between liver sampling and oil analysis.

The method is based upon extraction of the oil by means of methylene chloride, the use of which has three advantages:

(1) It is non-inflammable (therefore it can be safely evaporated over a camp stove or the like);

(2) As shown by Tompkins and Bolomey3/it does not interfere with the Carr-Price reaction for the colorimetric determination of vitamin A; and

(3) It is easily volatile, and therefore requires less time for evaporation than would a higher boiling point liquid (such as chloroform).

Equipment and supplies required for running simultaneous duplicate samples are:

1. One hand-operated grinder. This should be of the attrition-type having two grooved plates between which the material is macerated.
2. Suitable containers and paddles for mixing ground liver material.
3. Four 250 ml. beakers.
4. One triple-beam, laboratory balance of 500-gram capacity, graduated to 0.1 g.
5. Four 100 ml. graduated cylinders.
6. Two 4 oz. funnels.
7. One teaspoon.
8. Two glass stirring rods with flattened ends.
9. Suitable heat source.
10. Sodium sulfate (anhydrous).
11. Methylene chloride (technical grade).
12. Cotton.

*Chemists,
**Fellow in Technology, } Seattle Fishery Technological Laboratory

1/Charles F. Shockey and F. Bruce Sanford, "Preliminary Report on Drill Sampling Device for Fish Livers," Fishery Market News, May 1944, pp. 9-10.

2/At least one scientific equipment manufacturer has available a field kit for determining colorimetrically the vitamin A content of fish liver oil.

3/Paul C. Tompkins and Rene A. Bolomey, "Methylene Chloride," Industrial and Engineering Chemistry, Anal. Ed., 15, 437 (1943).

The equipment listed here is fairly rugged and if properly packed will withstand considerable abuse.

Procedure--The sample of livers is first reduced to a pulp by means of the grinder and then stirred vigorously to homogeneity by the use of any suitable available containers and paddles. Since the analysis can be no more reliable than the sample, considerable care is advisable to assure the procurement of a homogeneous mixture. A 20-gram portion of the homogenized sample is transferred into a 250 ml. beaker and weighed accurately; a rounded teaspoon of anhydrous sodium sulfate is added and thoroughly stirred into the liver material with a stirring rod. With a graduated cylinder approximately 30 ml. of methylene chloride are then added. After thorough agitation, the solids are allowed to settle and the solution is decanted--through a funnel having a cotton plug--into a graduated cylinder. (If the cotton plug is made too tight, filtration will be slow.) A second portion of 15 ml. of the solvent is then added to the liver material, the mixture stirred and the liquid decanted into the graduate as before. The process is repeated with additional 10 ml. portions of the solvent until the volume in the graduated cylinder is made up to approximately 100 ml.

If it is desired only to determine the oil content, the solution is then poured into a second 250 ml. beaker which previously has been weighed (tared), washing out the graduated cylinder with two 5 ml. portions of the solvent; the solution is placed over almost any suitable source of heat and the solvent evaporated until only oil remains. (Care must be taken to prevent spattering. A hot plate, if available, is most convenient, but any portable device such as an alcohol lamp or camp stove may be used.) CAUTION: Although methylene chloride fumes are not inflammable, they are poisonous. As soon as the solvent has been removed, the beaker is weighed, reheated (being careful not to heat the oil so strongly as to cause it to decompose) and reweighed until two successive weighings give the same result.

$$\% \text{ Oil} = \frac{(\text{weight of oil})(100)}{(\text{weight of sample})}$$

If a portion of the oil solution is to be taken for vitamin A analysis, the graduate is filled to exactly the 100 ml. mark. A completely uniform solution is made by placing the palm of the hand over the end of the graduate and carefully inverting it two or three times. A small amount of solution will be lost in this process, but the error will be negligible. After the portion needed for the vitamin A estimation has been taken, the volume of the solution remaining is read, and the solution is poured into a 250 ml. beaker. The graduate is washed out once or twice with solvent and the washings added to the beaker; the solvent is evaporated and the weight of oil determined as before.

$$\% \text{ Oil} = \frac{(\text{weight of oil})(10{,}000)}{(\text{weight of sample})(\text{number of ml. of solution evaporated})}$$

Accuracy--With livers of high oil content, the method is found to be quite accurate; it regularly gives results only one to three percent (relative) lower than the results which are obtainable by the careful laboratory method described by Stansby and Lemon.[1/] On low oil content livers, the results are likely to be somewhat less satisfactory. Following are examples of results obtained by this method.

Sample No.	Species	OIL CONTENT Method		Relative Error
		Accurate Laboratory	Rapid Field	
		Percent	Percent	Percent
KY-11	Grayfish	70.9	69.0	2.7
KY-12		69.3	68.3	1.4
KY-13		74.6	73.4	1.6
KY-9	Lingcod	20.2	19.2	5.0
KY-10		19.4	18.3	5.7

For most purposes, errors of these magnitudes are not critical, and will probably be within the error of the method used to estimate vitamin A.

1/M. E. Stansby and J. M. Lemon, "Quantitative Determination of Oil in Fish Flesh," Industrial and Engineering Chemistry, Anal. Ed., 9, 341 (1937).

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A PRELIMINARY REPORT ON AN ALKALI PROCESS FOR THE MANUFACTURE OF COMMERCIAL OIL FROM SALMON CANNERY TRIMMINGS

By Lyle Anderson*

INTRODUCTION--One of the greatest problems of the fisheries of Alaska is that of utilizing the immense volume of waste from the salmon canneries. The wasted portion consists of the head-collar section, the fins, and the viscera, and represents between 30 and 35 percent of the fish. Between 150 and 200 million pounds of this material are discarded annually.

With varying degrees of success, small amounts of these portions have been used in the preparation of pet foods, for the manufacture of edible oil, and for the manufacture of commercial oil and meal. At present, in Alaska there are two small plants engaged in manufacturing edible salmon oil, and there is one plant manufacturing commercial oil and meal. The bulk of the salmon trimmings are not utilized, but are either towed out to sea and dumped or, worse, left to rot underneath the cannery.

A process which offers some promise as an efficient means for utilizing at least the head-collar section of the salmon is the so-called alkali process, which was developed originally for lean fish livers. The exact details of the process used by each plant are seldom revealed, but it is believed that most plants processing lean fish livers use essentially the same process. This consists of grinding the livers, digesting them in 200 to 1500-gallon lots at a pH of 9 to 11 for a period of a half hour or so, and centrifuging the entire digest through one or more continuous centrifuges. The entire protein is dissolved and usually no meal is produced as a byproduct. The chief advantage of an adaptation of this alkali digestion procedure over orthodox reduction plant practice, is that considerably less initial investment is required. The disadvantages are that only a part of the raw material can be used and that no meal is produced.

By an alkali process it is possible to produce an oil of good commercial quality. It is not recommended at this time, however, that this process be used to produce edible canning oil because data are not available on the extent of formation of peroxides by this method, and preliminary studies have indicated that peroxides are highly undesirable in canning oils. It is hoped that future work on the subject will reveal improvements in the method reported here and will also disclose a method of processing the entire viscera to produce a vitamin-rich oil.

THE RAW MATERIAL--When salmon are dressed by an iron chink, it is possible to recover the head-collar section separately from the fins and viscera. To a first approximation, the distribution of weight among the portions of fish dressed by the iron chink are as follows:

		Percent
Cannery section		66
Head-collar section		15
Fins and viscera:		
Digestive tract and fins	8	
Eggs	6	
Milt	2	
Tails	3	19
		100

Although the head-collar section comprises somewhat less than half of the unused trimmings, it nevertheless contains nearly two-thirds of the oil in the trimmings. This section taken from pink salmon may be expected to produce 20 to 25 gallons of oil per ton of raw material.1/

Although salmon egg oil can be prepared by special processes, the eggs have not been found to submit readily to digestion with alkali. Since they are intimately mixed by the

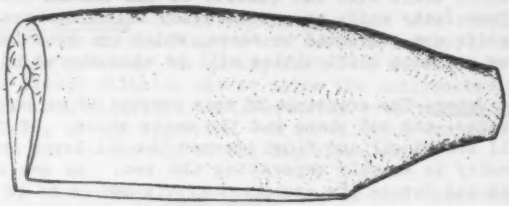
* Chemist, Fishery Products Laboratory, Ketchikan, Alaska.

NOTE: The Fishery Products Laboratory is jointly maintained by the Division of Commercial Fisheries of the Fish and Wildlife Service and the Fisheries Experimental Commission of Alaska.

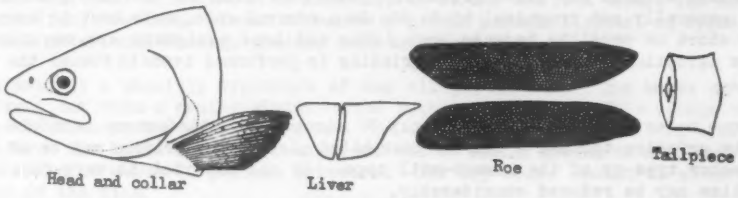
1/ R. W. Harrison, A. W. Anderson, et al, "Pacific Salmon Oils," Invest. Report 40, 1939.

iron chink, not only the eggs but all of the fins and viscera must be rejected at the same time. Inasmuch as the livers and caeca are not used, the oil will have a very low, and probably negligible, vitamin A content.

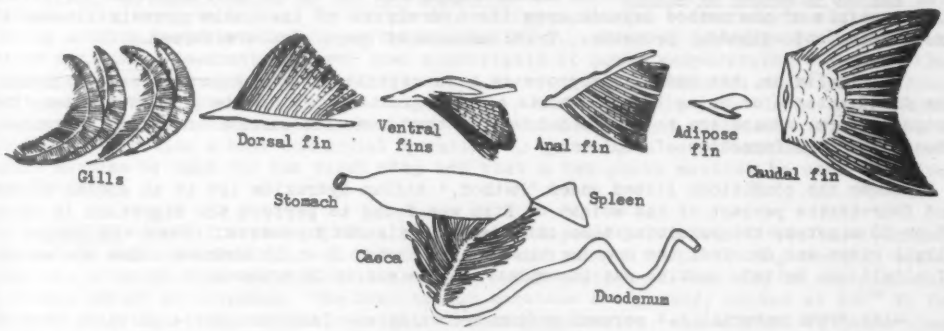
SKETCH SHOWING THE CUTS OF SALMON*



CANNED SECTION



EDIBLE TRIMMINGS



DISCARDED TRIMMINGS

METHOD--The head-collar sections are collected at the iron chink, as fresh and as nearly free of salt-water as possible, and are ground to a size such that not more than one dimension exceeds one-fourth inch. The ground fish is mixed with a 3.5 percent sodium hydroxide solution of a volume equal to 40 percent of the volume of the fish material. Commercial grade lye may be used if allowance is made for impurities. The mixture is heated to a temperature of 180° to 200° F. by heat from steam coils and is gently agitated throughout the cooking process. Cooking is continued for about 30 minutes, and at the end of that time, hot water is introduced until the digest is diluted to three times its original volume. After allowing the mixture to settle for 15 minutes, the oil layer and upper fourth of the water phase are drawn off. These liquors are passed through a 60-mesh rotating screen and then introduced into a centrifuge system. The finished oil is pumped to storage tanks.

EFFECT OF CERTAIN VARIABLES--This process has many variables. They range in importance from those that are critical to those that exert practically no effect on the results. Those variables which are apparently most important are considered in detail below.

*From "New Foods from Salmon Cannery Waste," by Lyle Anderson and Frank Piskur in April 1944 issue of Pacific Fisherman.

Effect of Freshness of Trimmings--There are at least two aspects of freshness to be considered. First, the optimum amount of alkali required varies with the degree of freshness. Since it is very difficult to estimate the degree of freshness of the trimmings, the simplest practice is arbitrarily to limit the time that the trimmings may be held.

The second aspect deals with the quality of the oil in the trimmings. This oil decomposes to form free fatty acids even before the trimmings are cooked. In the presence of alkali, these acids are converted to soaps, which are excellent emulsifying agents. As a consequence, less emulsion difficulties will be encountered if fresh materials are used.

Effect of Sea Water--The principle of this process is to dissolve the protein and leave only two liquid phases--the oil phase and the water phase. If for any reason the protein aggregates, it will absorb oil and float between the oil layer and the water layer, causing appreciable difficulty in sharply separating the two. As sea water tends to oppose the solution of protein and favors its aggregation, its use is to be avoided.

Effect of Particle Size--Provided adequate agitation is used, it is possible to digest cannery trimmings without any prior grinding operations but, due to the greater time required, it is generally not practical to do so. As a general rule, it is best to keep chemical processes as short as possible because less labor and less equipment are required. Also, the excessive agitation necessary when no grinding is performed tends to foster the formation of emulsions.

If the raw material is to be cooked only 30 minutes, a satisfactory particle size will be obtained by grinding through a quarter-inch-holed plate. The grinder may be of the screw and plate, hasher type or of the hammer-mill type. If the material is very finely ground, the cooking time may be reduced considerably.

Effect of Amount of Alkali--The amount of alkali is one of the most important variables. The principle of the method depends upon the hydrolysis of insoluble protein tissues to amino acids and colloidal proteins. Trace amounts of soaps also are formed.

Within limits, the hydrolysis proceeds more rapidly at the higher levels of alkali. The disadvantages of using larger amounts are the greater cost and the greater tendency for soaps to form. Soaps are to be avoided because they lower the surface tension of the water, thus aiding the formation of emulsions.

Under the conditions listed under "Method," sodium-hydroxide lye to an amount of one and four-tenths percent of the weight of fish was found to perform the digestion in about 15 or 20 minutes, the remaining time constituting a safety reserve. When the amount of alkali given was doubled, the cooking time was reduced to 5 or 10 minutes. When the amount of alkali was halved, cooking was incomplete at the end of 30 minutes.

With fresh material 1.4 percent sodium hydroxide was found to give a pH value between 11.5 and 12.0, as read on a commercial glass electrode pH meter at the end of the digestion period.

Effect of Concentration of Alkali--The concentration of alkali during the cooking process seems to be of less importance than the actual amount of alkali present. (That is, the volume of water is of only minor importance.) This circumstance probably is due to the buffering capacity of the proteins. As given, the dilution of fish for cooking is 40 percent. This dilution was used to allow more uniform mixing of the ingredients. When, however, more water was added, until the volume was four times that of the original, the digestion was still affected in the specified time.

Effect of Agitation--If the fish are ground reasonably well, only sufficient agitation to insure a constant washing of the surface of the protein pieces with alkaline water is necessary. Further agitation than this tends to cause the formation of emulsions and hence unnecessary subsequent effort in clarifying the oil. Stirring with high pressure steam from jets causes considerable agitation and is to be avoided. In general, large diameter, slow speed stirring wheels are better for well ground fish than are small, high speed blades.

Effect of Temperature on Hydrolysis--In these experiments, the best digestion, best yield of oil, and least emulsion formation occurred when a cooking temperature of over 200° F.

was used for a period of 30 minutes. At 175° F. digestion was complete in 30 minutes, but there was some emulsion formed. At 150° F. digestion was incomplete in 30 minutes. At 125° F. digestion was incomplete in four hours even though the amount of alkali was doubled. At 75° F. digestion was incomplete after four days even though the amount of alkali was quadrupled over the controls.

Effect of Dilution after Cooking--In the experiments that were conducted, it was found that it was necessary to add water to the fish for two reasons; namely, it facilitated cooking and it aided in dissolving the protein. As given, the first dilution of 40 percent was to facilitate cooking and the second dilution was to allow the undissolved protein medium for solution. Actually, the protein dissolved satisfactorily even though the entire dilution was performed at the beginning of the digestion. If no dilution was made, undissolved protein floated just below the oil at the end of the digestion period.

Effect of Screening the Centrifuge Feed Water--The modern American-made centrifuges have tiny orifices in the periphery of the bowl to permit the continuous discharge of some water and fine solids. Since there is a limit to the size of particles that can be discharged through these orifices, it is necessary to screen the feed water. The screen collects some fine solids, some large pieces of coarsely-ground protein tissues, an appreciable amount of bone, and occasional foreign pieces, such as tramp iron.

Bone meal is a possible byproduct of the oil production. The bones do not dissolve in the alkali but form a grainy sludge on the bottom of the tank. This sludge can be sluiced out of the tank on to the rotating screen. It can be washed on the screen with a fine spray of hot water. The bones dry very readily and can be easily ground to a 50-mesh powder. The wet bones drain to about 70 percent moisture. The dry bones amount to about 2 percent of the weight of the fish.

Effect of Centrifuging the Oil and Top-Water--It was found to be possible but not satisfactory to separate the oil by the use of settling tanks. Due to the formation of emulsions during cooking in jacketed settling tanks, at 212° F., about 10 percent of the oil broke clear per hour. Separation slowed down appreciably at lower temperatures. The oil that separated contained appreciable quantities of water. Occasionally an emulsion was found that was extremely stable. It is concluded that, although it is possible to use settling tanks with this process, it is much safer to rely on centrifuges until more information is available regarding actual commercial operation. In general, it is recommended that a three-phase machine be used for the first step and that a two-phase machine be used for final purification.

SUMMARY--A modification of the alkali-digestion process for lean livers has been made for salmon cannery trimmings. At present, the method is applicable to only the head-collar section; although this section contains the greater portion of the oil, it contains only a slight amount of vitamins. The head-collar sections are ground, cooked at 200° F. for 30 minutes with 1.4 percent their weight of sodium hydroxide, and diluted to three times their original volume. It is possible to separate the oil with settling tanks, but centrifuges are recommended.

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A RAPID METHOD FOR DETERMINING THE VITAMIN A POTENCY OF FISH LIVERS

By F. Bruce Sanford*

A rapid method of estimating vitamin A potency is a primary requirement for buying fish livers on a potency basis, because any delay in pricing the livers tends to work a hardship on the fishermen.

The proposed method directly determines the vitamin A content of the livers and differs from the usual methods in that neither the oil content nor the oil potency are determined. Specifically, a weighed sample of the liver is shaken with a measured quantity of petroleum ether; an aliquot of the petroleum ether solution is diluted with isopropanol, and the optical density of the resulting solution determined with a spectrophotometer. Liver potency is then calculated directly by means of the following formula:

*Chemist, Seattle Fishery Technological Laboratory.

$$P = \frac{2000\ d\ (e + 0.01\ sf)\ 454}{100\ lsv\ 10^6}$$

where

P = liver potency in millions of U.S.P. units per pound.
d = optical density of vitamin A solution (wave length = 328 m. mu.)
e = ml. of petroleum ether used to dissolve oil and vitamin A from the liver sample.
s = weight of liver sample.
f = average percentage of oil in livers of the species under examination.
l = length of absorption cell.
v = dilution of petroleum ether aliquot (i.e., volume of the isopropanol--petroleum ether solution).

As an example of the use of the formula, suppose that 3.00 g. of grayfish liver is shaken with 100 ml. of petroleum ether until equilibrium is established and that a 5 ml. aliquot of this is diluted with isopropanol to 100 ml. in a volumetric flask. If the optical density of this solution is 0.600 when measured in an absorption cell 1.005 cm. long, then the potency of the liver can be calculated thus (assuming that grayfish livers average 70 percent oil):

$$P = \frac{(2000)(0.600)\ [100 + (0.01)(3.00)(70)]\ 454}{(100)(1.005)(3.00)(5/100)(10^6)} = 3.69 \text{ million units per pound}$$

The equation is somewhat cumbersome in its present form, but simplification can be effected by combining the constant terms. For example, where a single species is being analyzed and the same dilution is used for each analysis, the formula can be reduced to

$$P = \frac{kd\ (e + 0.01\ sf)}{s}$$

where k is a constant,

$$\frac{(2000)(454)}{(100)\ lv\ 10^6}$$

The volume of the petroleum ether-oil solution (e + 0.01 sf) can be combined with the constant, if a calibrated thief[1/] or a similar device is employed to extract approximately uniform samples for each analysis, thus permitting the simpler form

$$P = \frac{K^1\ d}{s}$$

Obviously, potencies thus determined are subject to slight inaccuracies due to the uncertainty as to the oil content of the livers, but the use of a large volume of petroleum ether and a small sample renders the error negligible. For example, the oil content of grayfish livers will seldom, if ever, fall below 50 percent. In the illustration just given, if the true liver oil content had been 50 percent, the assumption of 70 percent oil would result in an error of less than 0.6 percent.

Under the present price structure, with OPA regulated ceilings, when the liver potency has been determined, there is no great advantage in knowing the exact potency of the oil if it is under 40,000 units of vitamin A per gram. However, if reasonable estimates are to be made of the monetary value of livers yielding oils of higher vitamin A potencies, the latter must be approximated quite accurately. To accomplish this, a graph of "oil potency vs. liver potency" based on former records could be used by the analyst to estimate oil potency sufficiently accurately for most practical purposes.

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1945 FISH PRODUCTION PROBABLY LESS THAN GOALS, OCF PREDICTS

The United States fishing industry, in spite of restoration of its fleet to nearly normal size, probably will be unable to produce enough fish and shellfish in 1945 to meet the goals established by the War Food Administration for the current year, Coordinator of Fisheries Harold L. Ickes said March 18.

1/ F. B. Sanford, G. C. Bucher, and W. Clegg, "Some Time and Labor Saving Techniques in Vitamin A and Oil Analyses," Fishery Market News, August 1944, pp. 6-8.

The shortage of manpower in processing plants and transportation difficulties may be the chief obstacles to increased production, according to Mr. Ickes, and may largely counterbalance the effect of recent gains in the size of the fishing fleet.

Although heavy production of fresh and frozen fish is predicted, the yield of all other classes of fishery products--canned, salted, and cured fish, and fish meal and oil--is expected to fall considerably below the quantities which the WFA considers necessary to meet all requirements.

Charles E. Jackson, Assistant Deputy Coordinator of Fisheries, said that because of heavy requirements of the military services, relief agencies, and other Government claimants, the need for increased production of canned fish is acute. While requirements are subject to frequent revision according to the progress of the war, the present 1945 goal is 811,000,000 pounds (net weight) of canned fish and shellfish. This represents a catch of somewhat more than a billion and a half pounds of fish of the types suitable for canning--salmon, sardines, tuna, and mackerel. However, Mr. Jackson doubted that the 1945 catch will permit production of more than about 665,000,000 pounds of canned fishery products.

Requirements of fish meal for livestock and poultry feeding have been set at 265,000 tons. A separate goal for fish oils has not been established, since production of oil and meal is closely related.

Although the 265,000-ton goal for fish meal is considerably less than the need for this type of animal feed, the Coordinator's Office estimates that domestic production will fall short of the mark by about 65,000 tons. Officials of the WFA have requested that priority should be given to production of foods for direct human consumption.

Fish meal is derived chiefly from menhaden, Alaska herring, and Pacific sardines, of which only the sardine is also an important source of food. These species are also the principal sources of industrial fish oils.

The 1945 goal for cured fish is 90,000,000 pounds, marketed weight, which is considerably in excess of anticipated production.

1945 ALASKA FISHERY REGULATIONS ISSUED

Changes that will permit the taking of an additional 31,000,000 pounds of herring in Alaskan waters during the 1945 season mark the new regulations for the protection of the commercial fisheries of Alaska as announced on March 27 by Secretary of the Interior Harold L. Ickes.

Because herring are needed for conversion into oil and meal, quotas for the catch have been raised in both the Prince William Sound area and in Southeastern Alaska for 1945, indicating the remarkable recovery of the herring resource in these areas from a depletion that threatened the fishery in recent years, the Secretary said.

In the Prince William Sound area, the summer season quota has been doubled to permit a take of 150,000 barrels, and limitations have been removed entirely during the fall season after August 20.

In Southeastern Alaska, an increase of 50,000 barrels has been authorized, permitting a total catch of 250,000 barrels in 1945.

In the Kodiak area, the catch quotas remain the same as in 1944, when 300,000 barrels of 250 pounds each could be taken.

Restrictions on herring fishing gear have been removed or modified in most districts of the Territory and seasonal opening and closing dates have been changed to encourage exploratory fishing and expansion of the herring industry to waters not now exploited.

Other changes in the regulations of interest to fishermen and packers are:

Regulations for the Bristol Bay area have been modified to close the Egegik district to commercial fishing because of anticipated poor runs to this region, and a mid-weekly closed period of 24 hours has been provided in the Nushagak and Kvichak-Naknek districts for additional protection of the small runs common in years divisible by 5.

Prince William Sound area regulations have been amended to increase the minimum length of salmon purse seines from 90 fathoms to 125 fathoms and to open the fishing season on July 1, ten days earlier than in 1944.

The salmon fishing seasons in the Icy Strait district and in the northern section of the western district of Southeastern Alaska have been changed to provide for opening dates five days earlier and closing dates one day later than at present.

Under the 1945 regulations, all salmon fishing, except by trolling, in Southeastern Alaska is prohibited prior to June 25 and such fishing by all classes of gear is prohibited between September 15 and October 20. The fall season, which formerly opened on October 1, will open this year on October 20 throughout southeastern Alaska and will remain open through November 30.

In Southeastern Alaska action has been taken to provide greater protection to the butter clam resource by increasing the minimum legal size from 2 to 2½ inches and by establishing a closed season from May 15 to September 15 of each year. This action will insure perpetuation of the resource by preventing depletion as a result of the present war-stimulated fishery.

In the same region the seasonal closed period from February 1 to April 15 for shrimp fishing has been restricted to the waters now commercially exploited, with the intention of encouraging exploratory fishing and expansion of the industry into waters not now fished.

As in previous years, the amended regulations will be published in codified form and furnished upon request to interested persons.

1945 PACIFIC HALIBUT OPERATIONS OPEN MAY 1

The Pacific halibut fleet of several hundred vessels will not begin its fishing operations this year until May 1, two weeks later than the usual date for the opening of the season, according to Charles E. Jackson, Assistant Deputy Coordinator of Fisheries.

The halibut fishery--the only deep-sea fishery under international regulation--is controlled jointly by the United States and Canada through the International Fisheries Commission, of which Mr. Jackson is a member.

The vessels and crews which will enter the halibut fishery on May 1 are now fishing for sharks, lingcod, and other bottom fish off the coast of Washington and Oregon, Mr. Jackson said.

The later opening date was requested by halibut fishermen and was approved by the Commission on the grounds that larger fish are available later in the season.

This year, American and Canadian fishermen will be allowed to take 52,500,000 pounds of halibut--an increase of a million and a half pounds over last year. The condition of the halibut stocks, which a few years ago were in a state of extreme depletion, is now showing definite improvement and the Commission has been able to increase the quota gradually.

Although the total catch of halibut is not large, this choice species is marketed widely throughout the country, the bulk of the catch being shipped from Pacific Coast ports to the Northeastern States. Halibut livers are an important source of vitamin oils.

The halibut is a giant flounder. While the male grows to a weight of more than 40 pounds, females have been found weighing ten times as much. The halibut is a slow-growing species, reaching commercial size at 5 years, maturing at 12, under favorable conditions living for perhaps half a century. Because of its slow growth, it is especially subject to depletion. Minimum size limits now protect young halibut, however.

The halibut is one of the chief species still caught by hook and line rather than in nets or traps. Like all flounders, it is a bottom feeder and lives close to the ocean floor

where it is taken on lines ranging from 300 to a little more than 1,000 feet in length. The species probably can live at even greater depths, but it is not at present economical to fish for them in such deep waters.

The Pacific halibut, like its cousin in the Atlantic, is found in places where the warm waters from the South mix with Arctic currents. In the Pacific, its habitat is a rough crescent from Bering Sea and the Alaska Peninsula and continuing South to northern California. It is also found in waters near Russia and Japan.

1945 PACIFIC HALIBUT FISHERY REGULATIONS ANNOUNCED

The International Fisheries Commission announced early in March that the 1945 Pacific Halibut Fishery Regulations have the following changes from the regulations of 1944:

Section 2 (a). The catch limit for Area 2, which includes the waters off the coasts of Washington, British Columbia, and southeastern Alaska, is increased from 23,500,000 to 24,500,000 pounds and for Area 3, off the coast of middle and western Alaska, from 27,500,000 to 28,000,000 pounds.

Section 3 (a). The closed season is defined to end on the 30th day of April of the year 1945, and of each year thereafter. This date of ending the closed season is fifteen days later than provided by the 1944 regulations.

The provision under which the Commission could fix any date subsequent to the first day of November as the commencement of the closed season regardless of the catch which it deems will be attained by such date is deleted.

Section 5 (e). Permits for the retention of halibut in the year 1945 shall become invalid at midnight of November 15, unless an earlier date is determined by the Commission. In 1944, the last date of validity of permits was November 30th.

The 1945 fishing season opens May 1.

OPEN HOUSE HELD AT SEATTLE LABORATORY

The Seattle Fishery Technological Laboratory of the Fish and Wildlife Service on February 27 held an open house to familiarize interested persons with its work. Attendance was close to 200. The following research problems now under investigation at the Laboratory were illustrated in displays:

Extraction of Agar from Seaweeds--Agar, a vitally needed media for bacteriologists and the medical profession, was formerly obtained largely from Japan. Experiments are under way to improve extraction processes so as to utilize our own limited resources for this material to the utmost.

Analysis of Fish Meal and Oil--A survey of the composition of fish meal and oil prepared as a by-product from fish trimmings and waste is being made. Analyses for moisture, protein, oil, ash, and chemical constants of the oil are made.

Analysis of Vitamin A in Fish Livers--An electrically operated fish liver sampler has been developed by this laboratory which is being widely adopted by industry. This was displayed as well as the various steps in the analysis of the vitamin content of fish livers.

Fish Cookery--Fishery products being developed in cooperation with the Army Quartermaster Subsistence Laboratory for inclusion in Army rations were shown. Newly developed precooked frozen fish products were displayed.

Investigations on Rancidity of Fish Oils--Investigations on use of antioxidants to retard rancidity in fish oils were shown.

Bacteriology of Fish--Methods of studying spoilage and sanitation of fish were demonstrated. An exhibit of photographic reproduction used in various laboratory projects was also shown.

Fishery Technological Library--The laboratory keeps files of about 40 fishery, food, scientific, and technical journals which are available for use in the building by the public.

Fishery Gear Engineering--Investigations on improvements in fishing gear were conducted. Moving pictures showing operation of fishing gear were shown.

Frozen Fish--Experiments to determine the most suitable methods of handling and packaging frozen fish were in progress. Materials were displayed suitable for packaging frozen fish both for commercial production and home refrigerated locker use.

Pilot Plant Preparation Fish Meal--Pilot Plant operation for production of fish meal from fillet waste was shown.

Smoking of Fish--Smoking of fish was demonstrated.

Use of Cans with Reduced Tin Content for Canned Fish--Experimental plates having low tin content for canning fish were displayed.

The fishery technological laboratories of the Fish and Wildlife Service, U. S. Department of the Interior, operate under the Division of Commercial Fisheries at Seattle, Wash.; College Park, Md.; Ketchikan, Alaska; and Mayaguez, Puerto Rico; to render service to the fishery industry somewhat comparable to the service offered by U. S. Department of Agriculture Laboratories and Experiment Stations to the farmers and food industries. Functions of the laboratories may be classified under three headings:

I. Research on problems of the fishing industry

II. Services rendered for the industry

III. Dissemination of technical information concerning the fisheries

Research problems cover a wide range of activities exemplified by the Seattle displays.

The second function of the laboratories, services rendered for the industry, includes such items as advice and suggestions for installation of new fish canneries and for new fish processing plants; working out solutions for special problems arising such as difficulty in keeping of a fishery product; assistance in sampling fish livers by use of a newly devised sampler until such facilities are generally available through commercial testing laboratories.

The third function, dissemination of technical information concerning the fisheries, consists in answering written or oral inquiries on such subjects as the chemical composition and nutritive value of fish, methods of home canning and cooking of fish, methods of storage of fish in refrigerated lockers, standard commercial practice in freezing, canning, and processing of fish or fish products.

TUNA TRADE AMENDMENT PROPOSED BY FEDERAL TRADE COMMISSION

On March 9, Henry Miller, Director of the Division of Trade Practice Conferences, Federal Trade Commission, addressed the Division of Commercial Fisheries of the Fish and Wildlife Service as follows:

> In the matter of amending the Trade Practice Rules for the Tuna Industry promulgated August 27, 1940, the following amendment has been suggested to be inserted as an additional paragraph at the end of Rule 1:
>
> "FISHES CLASSED AS TUNA: Under these rules, the following species, and no others, shall be deemed to be 'tuna':
>
> (1) Germo alalunga (Albacore)
> (2) Neothunnus macropterus (Yellowfin)
> (3) Thunnus thynnus (Bluefin)
> (4) Katsuwonus pelamis (Striped Tuna, Skipjack, or Aku)
> (5) Thunnus orientalis (Oriental Tuna)
> (6) Thunnus maccoyi (Southern Tuna)"
>
> In submitting suggestions in respect to amending the rules as set forth in the notice of hearing previously issued, it will be appreciated if members of the industry and interested or affected parties will also present their views as to the above suggested amendment. Such views may be submitted by memorandum, brief, letter or other communication, or by oral presentation at the hearing scheduled for March 26, 1945, Federal Trade Commission Building, Washington, D. C.

OPA RAISES FOOD ALLOTMENTS FOR FISHERMEN

The Institutional Rationing Division of the OPA on March 6 announced it would permit the granting of additional allotments to fishermen in areas of fishery production if they met certain tests.

Additional allotments of sugar, processed foods, and meats and fats are to be granted on basis of the following tests:

1. If the floating craft is wholly dependent upon food prepared in the ship's galley while in operation.
2. If the floating craft is removed from all sources of normal supply of such foods.
3. If no adequate storage for such foods is available, especially for those of a perishable nature.

A. If a floating craft can meet all the above requirements, the following factors are established:

Sugar - .2 lbs. per man per day Processed Foods - 26 points per man per day
Meats and fats - 5.8 points per man per day

B. Floating craft operating on a day-to-day basis and not able to meet all of the above tests were granted factors of:

Sugar - .2 lbs. per man per day Processed Foods - 3.2 points per man per day
Meats and fats - 4.8 points per man per day

C. Floating craft in operation less than 12 hours at one time were granted 50% of factors as calculated in Section B.

These allotments of food are tentative, pending final computation of food needs of fishermen.

WPB REVISES PRIORITY FORM

In a move to save paper as well as to simplify the processing of priority applications, the War Production Board has "streamlined" Form WPB-541, the general purpose application form for priority assistance, WPB announced on March 19. The new form comprises two pages instead of four as previously.

This application blank, which is used whenever a special priorities form is not prescribed by an order or regulation, is one of the most widely used in WPB. Formerly known as PD-1A, this form is used in the majority of cases by anybody who does not have a priority rating and needs one.

With the new style form, WPB will initiate the policy of keeping the original application and returning a duplicate for the applicant's records. Although the new forms have been distributed to all field offices, no definite cut-off day for the old form has been set.

ODT SAYS FREIGHT TRANSPORTATION CRITICAL

Warning that freight transportation is in the most critical condition since the start of the war, Col. J. Monroe Johnson, Director of the Office of Defense Transportation, on March 16 called upon the country's shippers for complete utilization of freight cars.

The War Production Board, National Association of Shippers Advisory Boards, and the National Industrial Traffic League joined with ODT in making the request. Shippers were given 11 specific suggestions for achieving greater car utilization and were asked to review their freight set-ups in order to make additional improvements.

The ODT director reminded shippers that this will be the third consecutive year of trillion-ton-miles freight transportation; that military demands are making constant inroads on transportation equipment and manpower; that railroads have 600,000 fewer freight cars than they had during the last war; and that the worst weather conditions in half-a-century have further handicapped the speedy handling of vitally-needed freight.

"There is little likelihood that the situation will materially improve during the entire year," Colonel Johnson said. "There is no way at this stage of the war of getting more materials or manpower to increase transportation capacity or even to maintain present efficiency. We must make what we have do the job. Every American shipper must do his part.

"Shippers, dependent on transportation for the movement of raw materials into plants and the movement of finished goods to the consumer, have a vitally important part in the solution of this problem. Complete freight car utilization is the only solution.

"On the battlefronts American airmen recognize the importance of enemy rail lines and equipment. They are 'high priority' targets. We on the home front must remember that full

utilization of our transportation system will not only help maintain our civilian economy, but also will be a direct and tangible contribution to victory."

The car utilization suggestions were:

1. Load all cars to capacity.
2. Where practicable, consolidate shipments to utilize car capacity. An example: Accumulate a carload instead of forwarding several separate L.C.L. shipments.
3. Be prepared to adjust loads to utilize different sizes or types of equipment when exact, ideal requirements cannot be met.
4. Order only the number of cars required for immediate loading.
5. Load cars so they can be unloaded from either side; stow and brace shipments in cars carefully so as to avoid damage, thereby making unnecessary the replacement of shipments.
6. Load all equipment immediately after placement and release cars to the railroads, with full and correct billing instructions without delay.
7. Unload cars immediately upon receipt and release to the railroads without delay equipment that is not to be reloaded. Before release, remove all dunnage and debris.
8. Keep in contact with local railroad authorities in regard to switching schedules, etc., and arrange unloading, loading, and billing operations accordingly.
9. Utilize all forms of available transportation.
10. Where practicable, the extra hours offered by Sundays and holidays should be fully utilized to make cars available for release or reloading.
11. Commercial consideration should not be permitted to interfere with efficient use of transportation.

HEAVY BOXCAR DEMURRAGE CHARGES REINSTATED

On the recommendation of Col. J. Monroe Johnson, Director of the Office of Defense Transportation, the Interstate Commerce Commission on March 15 placed heavy demurrage charges on the loading and unloading of boxcars, effective April 1, 1945. The action was taken, the ODT director said, in order to speed up the movement of freight in the face of an inadequate boxcar supply.

The ICC reinstated its Service Order No. 242 amended, which was previously in effect from October 19 to December 1, 1944. This order provides that after the expiration of the free time allowed by tariffs, demurrage charges on a closed boxcar, included in an average agreement, held for loading or unloading, which is not loaded or unloaded within the free time, shall be $2.00 per car per day or a fraction thereof for the first two (2) days; $5.50 per car per day or a fraction thereof for the third day; $11 per car per day or a fraction thereof for the fourth day; and $16.50 per car per day or a fraction thereof for each succeeding day.

The expiration date of the reinstated ICC Order No. 242 is October 1. Whether it will be possible to suspend it before that date will be determined by future conditions.

PREFERENCE RATINGS NECESSARY FOR ROPE AND TWINE STOCKS

Wholesalers, mill agents, and retailers who maintain inventories of cotton seine twine, wrapping twine (polished or unpolished), hawser cord, cable cord, twisted or braided rope, and other cordage products should file applications for preference ratings on these items only once for each calendar quarter's normal requirements, the War Production Board's Wholesale and Retail Trade Division said on March 15.

The announcement on this procedure was made because of the unusually large number of applications received recently by WPB for preference ratings on these products.

The agency said that applications (Form WPB-547) must be filed with an applicant's nearest WPB field office not later than the 20th of the first month of each quarter, and must include the names of the suppliers. Cordage subsequently received in stock should be resold without requesting preference ratings from applicant's customers.

WPB explained that interim applications may be filed at any time for preference ratings to purchase cordage products to fill specific military contracts. Applicants must furnish

the names of the firms to whom deliveries will be made, the military contract numbers, the end uses, and the names of the applicants' suppliers.

Mill agents who do not stock the above products should not file WPB-547 applications, WPB said, but should extend their customers' ratings as provided for in WPB Order M-317-b (Textiles). This order states that ratings will only be assigned on WPB Forms 2842 and 547, or Foreign Economic Administration and Canadian Cotton Administrator's authorizations. Therefore, only ratings thus assigned may be extended, WPB said.

WPB URGES CARE IN REQUESTING WORK GLOVE PRIORITIES

The War Production Board on March 13 warned essential operating companies that apply for priority assistance to obtain work gloves on Form WPB-541 filed with their nearest WPB district office that many applications are being denied or returned because of incomplete information being given.

Because of continued shortages of work gloves, their importance to the war production program, and the need for an equitable distribution of the limited available supply to all essential users to avert work stoppages, it is necessary that applicants apply only for their minimum requirements and do not stockpile this item, WPB officials stated. Quantities applied for must be restricted to absolute minimum requirements based on current average monthly consumption for the preceding three months, WPB said.

To avoid denial or return of application, complete information on each of the following points must be given in making application for preference rating for procuring work gloves:

(1) Description and quantity in dozens.
(2) Number of employees currently requiring work gloves.
(3) Average monthly consumption for preceding three months.
(4) Names of regular suppliers.
(5) Where possible, the brand name of gloves required.
(6) Glove inventory on hand.
(7) Quantity due on uncompleted orders against which preference ratings have been assigned.

The short supply and critical current need for work gloves do not permit the carrying of excess inventories. Gloves lying idle, awaiting issuance to employees, may result in other critical war industry plants being slowed down or stopped entirely for lack of the item, WPB pointed out.

As a means of reducing consumption and thereby spreading the present limited available supply of work gloves to all essential users, WPB urges war industries to adopt a conservation program embodying the following conservation measures:

1. Be sure employees are using the right type of glove for the particular operation. If there is any question, consult glove manufacturer or WPB.
2. Require that used gloves be turned in when new ones are issued. This tends to prevent gloves from being taken from the plant.
3. Soiled canton gloves should be laundered wet-wash.
4. Leather palm gloves should be cleansed of grease, grit and grime through use of solvents. This will prolong life of the glove.
5. Minor damage to gloves should be repaired.
6. Impress upon all employees the seriousness of the present shortage, and the need for conserving work gloves.

The production of work gloves and their availability to cover rated orders is controlled by WPB Conservation Order M-375 as amended January 22, 1945.

SURPLUS MARINE ENGINE PARTS AVAILABLE

Some $100,000 worth of new and used spare parts for gas and diesel marine engines, practically unobtainable in today's markets, have been declared surplus by owning agencies and are now on sale, the United States Maritime Commission announced on March 23.

Included in the list of miscellaneous articles are spare parts for marine engines including air receiver tanks, bearings, intake valves, piston rings, springs, etc.; oil filters, angle drives, couplings, duplex-type Kraissl fuel oil strainers, air intake balancers, Maxim and other makes of marine silencers, 175-gallon fuel tanks, 50-gallon storage tanks, reduction gears, spare gears, and small gas engines ranging from 19 to 65 horsepower built to special Navy specifications. Most of the latter are used and some require reconditioning.

Marine supply houses and boat yards are urged to send in listings of parts needed which will be promptly answered. For information, write to the Materials Disposal Section, Contract Settlement and Surplus Materials Division, U. S. Maritime Commission, Washington 25, D. C.

Sectional Marketing Review

FISHERIES OF VIRGINIA

From the middle of February to mid-March, fishermen in Virginia reported very satisfactory returns and prospects, according to the Service's Fishery Marketing Specialist in that state. Several unusually good returns were reported from seining for rockfish in the Rappahannock. A promising shad and herring season was just beginning and crab catches indicated a plentiful soft-crab supply for coming months.

The past oyster season was one of highest prices on record combined with abundance of stock. Tongers did so well that factory workers gave up war wages to tong oysters.

Fresh Fish Trade

FEBRUARY LANDINGS AT THREE PORTS 11 PERCENT ABOVE 1944

Landings of fishery products at the ports of Boston and Gloucester, Mass., and Portland, Maine, in February totaled 18,071,000 pounds, an increase of 19 percent above January and 11 percent above February 1944, according to the Service's Current Fishery Statistics No.

Landings by Fishing Craft at Boston and Gloucester, Mass., and Portland, Maine

Item	February 1945		January 1945		February 1944		Two months ending with February 1945		Two months ending with February 1944	
	Pounds	Cents*	Pounds	Cents*	Pounds	Cents*	Pounds	Cents*	Pounds	Cents*
Cod	4,168,595	8.27	2,756,380	8.25	3,178,287	8.34	6,924,975	8.27	4,493,460	8.30
Haddock	6,986,622	8.92	5,009,027	8.90	7,579,589	8.79	11,995,649	8.91	10,685,647	8.82
Hake:										
White	286,320	7.58	280,730	7.21	194,070	7.71	567,050	7.40	545,484	7.53
Red	130,894	3.00	20,729	2.99	270,514	3.00	151,623	3.00	655,957	3.14
Pollock	1,451,307	6.99	3,119,855	6.92	663,269	6.83	4,571,162	6.94	1,267,937	6.77
Cusk	41,261	7.46	35,300	7.49	59,580	8.58	76,561	7.48	156,834	7.83
Halibut	17,297	17.80	7,723	17.53	7,484	16.72	25,020	17.72	11,725	16.63
Mackerel	1,020	8.43	680	10.59	510	17.65	1,700	9.29	510	17.65
Flounders:										
Gray sole	235,585	8.94	103,320	8.88	141,858	8.90	338,905	8.92	267,330	9.01
Lemon sole	14,885	15.90	74,525	16.00	13,191	15.15	89,410	15.98	25,666	13.13
Yellowtail	136,920	6.50	189,695	6.52	196,568	7.52	326,615	6.51	447,229	7.48
Blackback	121,681	9.99	124,371	9.63	170,610	9.73	246,052	9.80	307,364	9.72
Dab	182,792	6.18	184,638	6.44	97,621	6.30	367,430	6.31	194,080	6.33
Other	225	-	40	-	-	-	265	-	-	-
Rosefish	4,165,775	4.22	3,215,821	4.21	3,531,508	4.20	7,381,596	4.21	7,066,286	4.19
Whiting	940	3.72	19,480	2.89	6,864	2.96	20,420	2.93	11,709	3.03
Wolffish	103,514	7.48	52,920	7.50	40,273	7.49	156,434	7.49	50,910	7.53
Ocean pout	2,990	2.17	900	3.00	38,419	3.54	3,890	2.36	81,246	4.29
Scallops (meats)	-	-	8,371	38.00	38,939	38.07	8,371	38.00	70,841	36.76
Other	22,073	-	11,276	-	85,474	-	33,349	-	168,057	-
Total	18,070,696	7.42	15,215,781	7.33	16,314,628	7.54	33,286,477	7.38	26,508,272	7.23
By ports:										
Boston	10,102,276	8.45	9,513,980	8.26	9,903,532	8.59	19,616,256	8.36	14,446,457	8.55
Gloucester	7,135,030	6.20	5,010,914	5.85	5,571,378	6.02	12,145,944	6.06	10,320,203	5.75
Portland	833,390	5.49	690,887	5.23	839,718	5.10	1,524,277	5.37	1,741,612	5.02

*Weighted average of prices per pound paid to fishermen.

185. The value of the landings to the fishermen was $1,341,400, or 20 percent greater than that of January and 9 percent more than February 1944. The weighted average price was 7.42 cents per pound compared with 7.33 cents for January and 7.54 cents for February 1944. Haddock, cod, rosefish, and pollock accounted for 93 percent of the total landings.

Landings by ports were: Boston, 10,102,000 pounds, valued at $853,200; Gloucester, 7,135,000 pounds, valued at $442,400; and Portland, 833,000 pounds, valued at $45,800. During the month, 183 craft made 527 trips to the fishing grounds.

In the first two months of the year, landings totaled 33,286,000 pounds, valued at $2,456,600, an increase of 26 percent in volume and 28 percent in value compared with the same period in 1944. A decline in landings was reported at Portland, while increases of more than 5 million and 1 million pounds were reported at Boston and Gloucester, respectively. The two-month over-all weighted average price was only slightly above that for 1944, averaging 7.38 cents per pound compared with 7.23 cents.

FEBRUARY RECEIPTS IN NEW YORK 9 PERCENT UNDER JANUARY

Receipts of fresh and frozen fishery products in the salt-water market in February showed a decrease of 9 percent compared with January and 4 percent compared with February 1944, according to the New York Market News office. Due principally to unfavorable weather conditions, receipts of certain groundfish species from New England points showed a considerable decrease, and a decrease in shrimp receipts was due to a combination of bad weather and labor difficulties. While the decline from the January 1945 figures was considerable, the comparison with February 1944 receipts was more favorable except in the case of shrimp.

The large increase of pollock receipts compared with 1944 was apparently due to adjustments in OPA maximum prices.

Receipts of Fresh and Frozen Fishery Products--Salt-water Market, New York City*

Item	February 1945	Feb. compared with Jan. 1945	Feb. compared with Feb. 1944	January 1945	February 1944
Classification:	Pounds	Percent	Percent	Pounds	Pounds
Fish	10,883,000	- 10	- 6	12,155,000	11,531,000
Shellfish, etc.	5,640,000	- 6	- 2	6,012,000	5,737,000
Total receipts	16,523,000	- 9	- 4	18,167,000	17,268,000
Important Items:					
Cod	1,515,000	+ 14	+ 17	1,327,000	1,297,000
Flounders:					
Blackback	248,000	- 33	- 49	371,000	485,000
Yellowtail	842,000	- 24	- 62	1,108,000	2,216,000
Fluke	926,000	+121	+ 19	419,000	776,000
Haddock	863,000	- 33	+ 2	1,281,000	844,000
Kingfish (King mackerel)	389,000	+ 34	+ 38	290,000	282,000
Pollock	389,000	- 55	+327	865,000	91,000
Scup (porgy)	400,000	+ 42	- 11	281,000	451,000
Sea bass	353,000	- 20	- 30	444,000	506,000
Smelt	550,000	+ 40	+ 1	394,000	542,000
Spanish mackerel	418,000	- 60	- 34	1,045,000	631,000
Whiting	742,000	+ 12	+ 57	662,000	474,000
Fillets, unclassified	369,000	- 26	- 11	501,000	415,000
Clams, hard	2,482,000	+ 7	+ 13	2,310,000	2,195,000
Lobsters, live	486,000	- 6	+ 34	515,000	364,000
Oysters, shell	1,506,000	- 8	- 4	1,639,000	1,563,000
Shrimp (prawn)	565,000	- 45	- 34	1,020,000	850,000
Arrivals by:					
Fishing vessels (50 trips)	1,620,000	+ 3	- 7	1,578,000	1,737,000
Truck, freight, and express	14,903,000	- 10	- 3	16,589,000	15,331,000

*Excluding imports entered at New York City.

FEBRUARY FISHERY RECEIPTS IN CHICAGO 15 PERCENT LARGER THAN JANUARY

Receipts of fresh and frozen fishery products in the Chicago market during February increased 15 percent over January but were 7 percent less than February 1944, according to the Service's local Market News office.

Arrivals of salt-water fish were 14 percent less than January and 13 percent less than those of February 1944. Receipts of shellfish, on the other hand, increased 69 percent over January and 65 percent over February 1944.

Shrimp from Mississippi provided the outstanding change from 1944 receipts. Only 4,000 pounds of shrimp were received from this state compared with 353,000 pounds received during February 1944.

Receipts of Fresh and Frozen Fishery Products at Chicago

Item	February 1945	February 1945 compared with Jan. 1945	February 1945 compared with Feb. 1944	2 months Jan.-Feb. 1945	2 mos. 1945 compared with 2 mos. 1944	12 months Jan.-Dec. 1944
Classification:	Pounds	Percent	Percent	Pounds	Percent	Pounds
Fresh-water fish	3,101,000	+ 27	- 15	5,546,000	- 22	38,132,000
Salt-water fish	1,659,000	- 14	- 13	3,594,000	+ 1	20,439,000
Shellfish, etc.	846,000	+ 69	+ 65	1,346,000	+ 1	8,089,000
Total receipts	5,606,000	+ 15	- 7	10,486,000	- 12	66,660,000
Important Items:						
Carp	172,000	- 36	- 29	442,000	- 27	2,703,000
Lake herring	212,000	+ 16	- 16	395,000	- 34	3,086,000
Lake trout	507,000	+174	+156	692,000	- 9	7,310,000
Whitefish	578,000	+ 86	+ 52	1,505,000	+ 27	5,893,000
Yellow pike	219,000	- 23	-	503,000	- 10	3,443,000
Fillets:						
Cod	77,000	- 3	- 67	156,000	- 65	2,401,000
Rosefish	42,000	- 85	- 64	323,000	- 3	2,272,000
Halibut	326,000	- 55	- 34	1,049,000	+ 26	7,948,000
Salmon	160,000	- 42	- 44	438,000	- 20	2,651,000
Whiting	183,000	+ 39	+113	315,000	+ 27	827,000
Shrimp	520,000	+213	+105	686,000	+ 15	5,758,000
Leading Sources:						
Massachusetts	463,000	- 19	- 23	1,034,000	- 14	5,299,000
Mississippi	353,000	+	-	356,000	-	492,000
Wisconsin	462,000	+ 19	- 24	850,000	- 32	7,558,000
Alaska	281,000	- 58	- 28	953,000	+143	3,746,000
Manitoba	1,614,000	+193	- 3	2,165,000	- 21	7,907,000
Domestic total	3,295,000	- 5	- 6	6,747,000	- 4	45,948,000
Imported total	2,311,000	+ 62	- 9	3,739,000	- 23	20,712,000
Transported by:						
Truck	449,000	- 18	- 65	996,000	- 61	14,664,000
Express	1,832,000	- 17	+ 6	4,034,000	+ 2	27,650,000
Freight	3,325,000	+ 56	+ 9	5,456,000	+ 2	24,346,000

FAVORABLE WEATHER AIDS GULF FISHERY PRODUCTION

Favorable weather conditions during the first part of 1945 have aided virtually all fishery production in the Gulf Area. A large increase in shrimp production over the first two months of 1944 has been due to production not hampered as in 1944 by strikes. Production in the Biloxi area was tied up throughout January 1944.

Production of Fishery Products in the Gulf States*

Item	Unit	February 1945	February 1945 compared with Jan. 1945	February 1945 compared with Feb. 1944	2 mos. Jan.-Feb. 1945	Compared with 2 months 1944	12 months Jan.-Dec. 1944
Shrimp:			Percent	Percent		Percent	
For canning	Bbls.	1,712	- 71	+	7,705	+	115,915
Other	"	9,216	- 53	-12	28,699	+29	239,115
Total	"	10,928	- 57	+ 4	36,404	+59	355,030
Oysters:							
For canning	"	50,620	+245	-40	65,312	-36	326,889
Other	"	36,747	- 17	+11	80,817	+31	248,513
Total	"	87,367	+ 49	-25	146,129	-11	575,402
Crabs, hard	Lbs.	250,140	+ 35	-20	436,020	+10	11,368,787
Crabmeat, fresh-cooked	"	22,835	+ 69	-43	36,335	-23	1,107,843
Salt-water fish	"	417,355	- 9	- 7	931,115	+ 2	5,207,784
Fresh-water fish	"	46,112	+ 3	-23	90,736	+12	691,977

*Includes production in Alabama, Mississippi, Louisiana, and Texas.

Oyster canning increased sharply over January as the OPA increased the ceiling price on this commodity, thus stimulating canning operations.

The demand for all seafoods has been much greater than in 1944 because of increased shortage of other protein foods and the latter's higher ration point values. The shortage of manpower still is holding back production both on boats and shore plants, with not much promise of relief.

RECEIPTS AT SEATTLE RISE 50 PERCENT IN FEBRUARY

Receipts of fresh and frozen fishery products at Seattle during February were over one and one half million pounds larger than January receipts, according to the Service's local Market News office. The landings and wholesale receipts, amounting to 4,581,000 pounds, were 50 percent heavier than the January total, but were 7 percent less than February 1944.

A moderating of weather conditions permitted considerably larger catches of bottom-fish by otter-trawl vessels, with lingcod, rockfish, and sole showing the most improvement. There was also a good run of smelt in the Columbia River district, and while deliveries of this species to Seattle had a strong weekly fluctuation, the total figure of 262,000 pounds was greater than for both the preceding month and the same month a year earlier.

The receipts of fresh salmon during February were extremely light, totaling but 45,000 pounds or 10 percent of the salmon receipts. The balance was frozen fish from Alaska and British Columbia.

Fishing for shark continued almost exclusively for the production of livers. Only 6,000 pounds of shark carcasses were landed, a 97 percent decline compared to February 1944. Liver receipts, on the other hand, increased 72 percent over February 1944. The 1945 two-month total of 462,000 pounds was 30 percent greater than the total for the corresponding period in 1944.

Receipts of Fresh and Frozen Fishery Products at Seattle*

Item	February 1945	February 1945 compared with		2 months Jan-Feb 1945	2 mos. 1945 compared 2 mos. 1944	Jan.-Dec. 12 months 1944
		Jan. 1945	Feb. 1944			
Classification:	Pounds	Percent	Percent	Pounds	Percent	Pounds
Total fish and shellfish	4,581,000	+ 50	- 7	7,640,000	- 13	68,140,000
Important Items:						
Cod, true	110,000	- 65	+ 20	237,000	+ 66	641,000
Flounder	68,000	+ 13	- 18	128,000	- 29	400,000
Lingcod	355,000	+131	- 16	509,000	- 10	6,276,000
Rockfish	503,000	+ 96	+107	759,000	+ 96	5,610,000
Sablefish	106,000	- 18	+ 47	236,000	+134	3,889,000
Salmon	471,000	+ 30	- 67	833,000	- 62	12,244,000
Shark	6,000	+	- 97	6,000	- 98	440,000
Smelt	262,000	+330	+	323,000	+477	559,000
Sole	181,000	+ 53	- 20	298,000	- 27	6,306,000
Shellfish	570,000	- 17	- 6	1,265,000	+ 12	4,708,000
Livers	309,000	+101	+ 72	462,000	+ 30	5,985,000

*Halibut and shark fleets and receipts from local and all other sources.

NEW ENGLAND LANDINGS MAKE GAINS OVER 1944 TOTALS

With the normal Lenten demand for fresh fish increased by generally short supplies of meat throughout the country, heavy landings during the first two weeks of the spring fishing season in New England have already resulted in a catch nearly 50 percent larger than during the same period last year, Charles E. Jackson, Acting Deputy Coordinator of Fisheries, said on March 23.

Larger catches are expected to continue during the spring and summer months, when fishing conditions on the banks are most favorable, Mr. Jackson said.

For the period from March 1 to March 17, leading fishing ports in New England, including Boston, Gloucester, New Bedford, and Portland, reported substantial gains compared with last

year. New Bedford landings were up 14 percent; Gloucester, 56 percent; and Boston, 59 percent. Portland, up 85 percent, showed the largest percentage of gain, but the poundage represented by landings at that port is relatively small.

The total catch at the four ports for the period January 1 to March 17 was 58,555,000 pounds, compared with 49,271,000 pounds for the same period last year.

The port of Gloucester may exceed even last year's record-breaking production of fish; total landings since January 1 are already 27 percent ahead of the 1944 figures.

New England produces more fresh fish than any other section of the country and markets its products, in the form of whole or filleted, fresh or frozen fish, widely throughout the interior of the country as well as along the Atlantic Coast. Principal species caught in New England waters are haddock, rosefish, cod, mackerel, hake, and flounders.

Mr. Jackson said that because of the heavy market demand, little of the fish now entering New England ports is being frozen for storage. Holdings of frozen fish, as of March 1, were 26 percent below stocks at the same time last year, and 8 percent below the 5-year average.

AMDT. 44 TO MPR-418 EFFECTIVE APRIL 1

Summer wholesale ceiling prices for fresh Canadian lake fish have been extended to November 7 for fish purchased before October 31 and winter prices have been extended to April 7 for fish bought before March 31, the Office of Price Administration announced on March 27.

The action, effective April 1, 1945, provides an extension of the summer schedule to November 7 on fresh fish bought during the summer period, and a similar seven-day extension of the winter schedule to April 7 was also allowed under this amendment for fish bought during the winter period.

The Canadian lake fish covered by this amendment are:

Whitefish	Lake trout	Sucker	Sauger
Tullibee	Yellow pike	Pickerel	Yellow perch

Until the amendment, summer wholesale prices were in effect from April 1 to October 31, and the winter wholesale prices were in effect in the period from November 1 to March 31. OPA pointed out that because of the time involved in transporting fish bought in Canada to the importer's place of business, fish purchased at the lower summer prices in late October could not be marketed for several days after November 1 when the higher winter prices were in effect. Conversely, fish bought during the winter period late in March could not be marketed until after the summer schedule was in effect. This resulted in an inequitable situation, OPA explained. During the first week of November, housewives were required to pay winter prices for fish purchased by wholesalers at summer prices, and during the first week of April, wholesalers were forced to deliver at summer prices the last of the fish they had acquired at winter prices.

The amendment, OPA explained, will enable wholesalers sufficient time to dispose of fresh fish bought in Canada during the respective seasonal schedules.

Amdt. 44 to MPR-418--Fresh Fish and Seafood--became effective April 1. Excerpts follow:

Maximum Price Regulation No. 418 is amended in the following respects:

1. In section 22, Table B, Schedule No. 66 is revoked.

2. In section 22, Table C, Schedule No. 66 is revoked.

3. In section 22, Table D, Schedule No. 66 is revoked.

4. In section 22, following Table B, Footnote 21 is amended by adding the following paragraph:

The prices listed for this species for the months of April through October apply to sales where delivery to the purchaser is made in November prior to November 8. The prices listed for the months of November through March apply to sales where delivery to the purchaser is made in April prior to April 8.

AMDT. 1 TO MPR-579; AMDT. 28 TO MPR-364; AMDT. 43 TO MPR-418

The effective date of the new regulation governing producers, distributors, and wholesalers maximum prices for fresh and frozen fish of the North Atlantic species will be postponed from March 9, to April 1, 1945, the OPA announced on March 8.

The postponement of the effective date was necessary because of an unavoidable delay distributing copies of the regulation and trade bulletins to the industry, OPA said. Because of this delay, sufficient time has not elapsed for the trade to become acquainted with the new regulation.

The effective dates of Amdt. 41 to MPR-418 and Amdt. 27 to MPR-364 have also been postponed from March 9, to April 1.

Base prices are also established for frozen halibut cheeks in MPR-364.

Amdt. 1 to MPR-579--Certain Species of Fresh and Frozen Fish and Seafood; Amdt. 43 to MPR-418--Fresh Fish and Seafood; and Amdt. 28 to MPR-364--Frozen Fish and Seafood--all became effective March 8, 1945. Excerpts follow:

In Maximum Price Regulation No. 579 the provision as to the effective date of the regulation is amended to read as follows:

This regulation shall become effective April 1, 1945.

Maximum Price Regulation No. 364 is amended in the following respects:

1. In section 13, Schedule 15 (Halibut) is amended by adding Item 8 to read as follows:

Schedule No.	Name	Item No.	Style of processing	Size	Base price per pound
15	Halibut (Hippoglossus hippoglossus)	8	Cheeks	All sizes	$0.21½

2. In section 13, footnote 12 following the Table of Base Prices, is revoked.

3. The provisions with regard to the effective date of Amendment 27 are amended to read as follows:

This amendment shall become effective April 1, 1945, except as to sales of the species of frozen fish or seafood listed herein which, prior to April 1, 1945 have been received by a carrier, other than a carrier owned or controlled by the seller, for shipment to the purchaser. Maximum Price Regulation No. 364 remains in full force and effect with respect to such sales of frozen fish or seafood.

This amendment shall become effective March 8, 1945.

Maximum Price Regulation No. 418 is amended by changing the effective date provision of Amendment 41 to read as follows:

This amendment shall become effective April 1, 1945, except as to sales of the species of fresh fish or seafood listed herein which, prior to April 1, 1945, have been received by a carrier, other than a carrier owned or controlled by the seller, for shipment to the purchaser. Maximum Price Regulation No. 418 remains in full force and effect with respect to such sales of fresh fish or seafood.

AMDT. 2 TO MPR-579 ISSUED MARCH 31

The new summer base price of 22½ cents per pound, effective April 1, 1945, has been established for processors' sales of frozen rosefish fillets, the Office of Price Administration announced on March 31. This represents an increase of ½ cent per pound over the processors' base price of last summer.

In addition, a new winter base price of 23-3/4 cents has been established, to go into effect October 1, 1945. The new winter price represents a reduction of ½ cent per pound from prices in effect last winter.

The over-all yearly effect of the action will be a slight increase over processors' former returns, since the summer season's production is greater than the winter production. This increase is necessary, OPA said, to return out-of-pocket costs on this item. The new processors' prices will not increase the retail prices in effect for frozen rosefish fillets last summer, OPA explained, because lower cents-per-pound wholesale prices have been established in the new fish regulation (MPR-579, effective April 1, 1945) replacing the percentage mark-up over net cost that was formerly used.

Processors will be required to dispose of all inventories of rosefish fillets frozen in the summer season at the summer ceiling price.

Before a processor may charge the winter price during the winter season, he must sell on the basis of the 22½ cents summer price, an amount equal to his inventory frozen during the summer period and on hand on the last business day in September.

Wholesalers must sell at summer prices all frozen rosefish bought on the basis of summer prices regardless of whether they make the sale in the winter period or in the summer period.

These provisions are necessary to prevent the diversion of summer production for sale at the higher winter price, OPA said.

Processors are allowed seven days in April (to April 7) to sell on the basis of the 23-3/4-cent winter price any rosefish fillets frozen during the last days in March while the higher winter fresh fish prices are in effect. Wholesalers are given through April 14 for disposition of this production. This will prevent any interruption in freezing rosefish during the last days of the winter season.

Amdt. 2 to MPR-579--Certain Species of Fresh and Frozen Fish and Seafood--became effective April 1. Excerpts follow:

Maximum Price Regulation No. 579 is amended in the following respects:

1. In section 10.1 (b), Table 1B, Schedule No. 13 is amended to read as follows:

Sched. no.	Species	Item no.	Style of dressing	Size	I	II	III	IV	V
13	Rosefish:								
	(Apr-Sept)	1	Fillets	All	22¼	24	24½	28¼	28¼
	(Oct-Mar)	2	Fillets	All	23¾	25¼	25¾	27½	30

2. In section 10.1 (b), at the end of Table 1B, footnote 1 is amended to read as follows:

[1] No processor shall sell rosefish fillets between October 1 and April 1 on the basis of the winter prices (Item 2) until he shall have sold on the basis of the summer prices (Item 1) an amount equal to his inventory at the close of business on the last business day in September.

A wholesaler must sell on the basis of the summer prices (Item 1) all frozen rosefish fillets bought on the basis of the summer prices (Item 1).

A processor may sell or deliver rosefish fillets frozen between October 1 and April 1, on the basis of the prices listed for Item 2 through April 7. A wholesaler who buys such rosefish fillets may sell them on the basis of the prices listed for Item 2 through April 14.

All other sales of rosefish fillets must be made on the basis of the summer prices (Item 1).

Frozen Fish Trade

FOUR MILLION POUNDS OF FISH FROZEN IN U. S. DURING FEBRUARY

Domestic freezers froze 4,191,000 pounds of fishery products during February, according to the Service's Current Fishery Statistics No. 173. This was 15 percent below the poundage frozen during January. Since data on the production of frozen fishery products is now collected in greater detail than formerly, comparisons of freezings during 1945 cannot be made with figures collected for previous periods. Prior to 1945, figures on freezings included reports by a number of firms who reported as frozen certain fishery products which had been received already frozen, or the quantity of frozen fish and shellfish which had been held in their plants during the month. Fortunately data on the holdings of frozen fishery products collected in 1945 are comparable with those obtained in previous years, and comparisons of stocks can be made.

The collecting, editing, and tabulating of monthly statistics on cold-storage holdings and freezings were transferred from the War Food Administration to the Fish and Wildlife Service beginning with January 1945. Arrangements have been made to have the Fishery Market News offices collect and edit reports from the firms in their respective localities. This will permit the collection of more complete and detailed data than has been possible in the past. Arrangements have also been made to collect data on freezings and holdings of United States owned "in bond" fish in Canadian plants. Information on these products has not been included with previous United States or Canadian cold-storage reports.

Freezings of Fishery Products in the United States and Alaskan Cold-storage Plants

Item	February 1945	February compared with January	January 1945
	Pounds	Percent	Pounds
Total fish and shellfish	4,191,000	- 15	4,918,000
Important Items:			
Fillets:			
Cod	143,000	+321	34,000
Flounder	28,000	- 55	62,000
Haddock	105,000	+ 28	82,000
Rosefish	991,000	+ 30	765,000
Herring, sea	28,000	- 12	32,000
Mullet	9,000	- 40	15,000
Smelt	699,000	+258	195,000
Catfish and bullheads	4,000	- 82	22,000
Whitefish	64,000	+ 60	40,000
Oysters	63,000	+ 24	51,000
Scallops	42,000	- 45	77,000
Shrimp (including shrimp meat)	866,000	- 31	1,262,000

U. S. COLD-STORAGE HOLDINGS SHOW SHARP DECLINE ON MARCH 1

Stocks of frozen fishery products in cold-storage warehouses on March 1 totaled 52,965,000 pounds, 33 percent less than February 1, according to the Service's Current Fishery Statistics No. 173. This total was 24 percent below the stocks on hand March 1, 1944, and 6 percent under the 5-year average for March. Increases of 6 percent in holdings of whitefish and 30 percent in cured salmon occurred during the month ending March 1. Stocks of all other important items declined.

Holdings of Fishery Products in United States and Alaskan Cold-storage Plants

Item	March 1, 1945	Feb. 1 compared with Feb. 1, 1945	Feb. 1 compared with Mar. 1, 1944	Feb. 1 compared with 5-year average*	Feb. 1, 1945	March 1, 1944	5-year average*
Frozen fish and shellfish:	Pounds	Percent	Percent	Percent	Pounds	Pounds	Pounds
Total holdings	52,965,000	-33	- 24	- 6	78,971,000	69,857,000	56,063,000
Important Items:							
Croakers	495,000	-57	- 20	+14	1,148,000	615,000	436,000
Fillets:							
Cod	1,568,000	-54	- 10	+28	3,431,000	1,736,000	1,221,000
Haddock	623,000	-59	- 68	-74	1,532,000	1,975,000	2,435,000
Pollock	417,000	-60	+123	-76	1,034,000	187,000	1,720,000
Rosefish	1,202,000	-26	- 10	-31	1,634,000	1,341,000	1,741,000
Halibut	3,581,000	-44	+ 53	+ 8	6,447,000	2,344,000	3,312,000
Mackerel	2,742,000	-53	- 9	- 5	5,811,000	3,003,000	2,895,000
Mullet	919,000	-45	- 51	- 5	1,659,000	1,857,000	965,000
Sablefish (black cod)	1,837,000	-21	+ 39	+28	2,337,000	1,321,000	1,440,000
Salmon (all species)	4,382,000	-44	- 8	+ 3	7,847,000	4,765,000	4,256,000
Scup	671,000	-34	- 31	+43	1,012,000	972,000	469,000
Whiting	3,968,000	-33	- 7	- 5	5,919,000	4,280,000	4,165,000
Whitefish	1,064,000	+ 6	- 35	-36	1,004,000	1,627,000	1,671,000
Shrimp	6,631,000	-26	+ 3	+52	9,012,000	6,449,000	4,375,000
Cured fish:							
Herring, cured	8,580,000	- 3	+ 24	-21	8,824,000	6,945,000	10,929,000
Salmon, mild-cured	1,472,000	+30	+238	-58	1,136,000	435,000	3,485,000

*Since the date for reporting holdings of fishery products was changed from the 15th to the first of the month beginning January 1, 1943, data included in the "5-year average" consist of a combination of figures for the two periods.

BOSTON COLD-STORAGE HOLDINGS CONTINUE TO DECLINE IN FEBRUARY

There was a decline of 36 percent in cold-storage holdings of fishery products in Boston between January 31 and February 28, according to the Service's local Market News office. Smelt was the only item to show an increase, while all other major items showed substantial decreases. Particularly large decreases occurred in flounder, mackerel, and rosefish fillet stocks.

Compared to holdings of February 23, 1944, haddock and pollock fillets showed increases, while other filleted fish holdings diminished considerably. Mackerel and scallop stocks were larger, while smelt and shrimp holdings were greatly reduced.

Whiting stocks on February 24 in 12 plants in Maine and Massachusetts fell off 44 percent from January 27 and 45 percent from February 26, 1944. Holdings of dressed, H&G fillets and skuljoes, round whiting, and animal food totaled 1,936,000 pounds.

Boston Cold-storage Holdings

Item	Feb. 28, 1945	Feb. 28 compared with Jan. 31, 1945	Feb. 28 compared with Feb. 23, 1944	Jan. 31, 1945	Feb. 23, 1944
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	4,927,000	-36	- 35	7,701,000	7,590,000
Important Items:					
Fillets:					
Cod	168,000	-52	- 31	351,000	243,000
Flounder	13,000	-97	- 92	460,000	163,000
Haddock	218,000	-33	+ 49	325,000	146,000
Mackerel	40,000	-92	- 31	496,000	58,000
Pollock	182,000	-61	+237	463,000	54,000
Rosefish	59,000	-90	- 40	583,000	98,000
Mackerel	1,388,000	-29	+ 22	1,962,000	1,135,000
Smelt	202,000	+	- 72	32,000	709,000
Scallops	203,000	-28	+361	282,000	44,000
Shrimp	280,000	- 2	- 51	287,000	567,000

MARCH 1 HOLDINGS IN NEW YORK 12 PERCENT OVER MARCH 1, 1944

With the help of an additional 1,000,000 pounds of fishery products not reported prior to March 1, holdings in New York cold-storage warehouses on that date were 12 percent higher than those of March 1, 1944, according to the Service's Fishery Market News office in New York. Due to a misunderstanding of the method of reporting holdings, one company had not been reporting monthly holdings of one of its warehouses. Without this adjustment, the increase would have been 1 percent instead of 12. Compared with February 1, holdings declined 8 percent.

Leading items affected by the addition are shrimp, 375,000 pounds; mackerel, 240,000 pounds; scup (porgy), 90,000 pounds.

The five leading items--shrimp, king salmon, cod fillets, mackerel, and sablefish--suffered decreases from February 1 but remained considerably larger than stocks of March 1, 1944.

New York Cold-storage Holdings

Item	March 1, 1945	Mar.1,1945 compared with Feb.1,1945	Mar.1,1945 compared with Mar.1,1944	Feb. 1, 1945	March 1, 1944
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	10,398,000*	- 8	+12	11,357,000	9,252,000
Important Items:					
Butterfish	131,000	- 26	-56	176,000	296,000
Fillets:					
Cod	913,000	- 12	+	1,041,000	56,000
Haddock	213,000	- 48	+	413,000	18,000
Halibut	485,000	+149	+	195,000	31,000
Sea herring	261,000	+187	- 8	91,000	284,000
Mackerel	777,000	- 21	+90	986,000	410,000
Sablefish	758,000	- 11	+62	848,000	468,000
Salmon, king (chinook)	1,234,000	- 16	+72	1,466,000	717,000
Scup (porgy)	216,000	- 15	-16	254,000	256,000
Smelt	248,000	+	-50	39,000	496,000
Unclassified, salt-water	826,000	+ 13	-16	734,000	984,000
Whitefish	419,000	+ 8	-33	387,000	626,000
Shrimp (prawn)	1,739,000	- 8	+38	1,899,000	1,263,000

*1,036,000 pounds added as of March 1st.

CHICAGO COLD-STORAGE HOLDINGS CONTINUE TO SHOW MARKED DECLINES DURING FEBRUARY

Chicago public cold-storage warehouses held 4,570,000 pounds of frozen fish and shellfish on February 22, according to the Service's local Market News office. This was a 17 percent decline from January 25, and compared with February 24, 1944, a drop of 42 percent.

The decreases in holdings were with few exceptions generally distributed throughout the total list of species of fish and shellfish held in the cold-storage warehouses.

Chicago Cold-storage Holdings

Item	Feb. 22, 1945	Feb.22,1945 compared with Jan.25,1945	Feb.22,1945 compared with Feb.24,1944	Jan. 25, 1945	Feb. 24, 1944
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	4,570,000	-17	-42	5,485,000	7,879,000
Important Items:					
Blue pike and sauger	179,000	-26	-86	241,000	1,317,000
Chubs	200,000	-40	- 5	336,000	211,000
Lake herring	224,000	-17	-66	270,000	652,000
Lake trout	165,000	-20	-45	207,000	299,000
Pickerel	33,000	+10	-82	30,000	190,000
Whitefish	251,000	- 5	-50	264,000	504,000
Yellow perch	34,000	-51	-82	70,000	191,000
Yellow pike	28,000	-15	-86	33,000	198,000
Fillets:					
Cod	293,000	-26	+81	397,000	162,000
Haddock	74,000	-40	+	124,000	-
Rosefish	174,000	-16	+ 2	207,000	170,000
Halibut	458,000	-29	-15	642,000	536,000
Mackerel	134,000	+22	-44	110,000	239,000
Sablefish	116,000	-43	- 3	204,000	119,000
Salmon	177,000	-40	-54	293,000	387,000
Whiting	198,000	- 9	-39	218,000	327,000
Shrimp	1,100,000	- 2	+97	1,127,000	557,000
Spiny lobster tails	116,000	+ 2	+	114,000	-

FREEZINGS OF FISH BY CANADIAN PLANTS GAIN IN FEBRUARY

Canadian freezers froze 5,744,000 pounds of fresh fish during February compared with 4,716,000 pounds in January and 3,170,000 pounds in February 1944, according to the Dominion Bureau of Statistics. This was an increase of 22 percent and 81 percent, respectively, over the earlier periods. The main items frozen were sea herring and cod fillets.

Freezings of Fishery Products in Canadian Cold-storage Plants

Item	February 1945	February compared with Jan.1945	February compared with Feb.1944	January 1945	February 1944
Frozen fresh fish	Pounds	Percent	Percent	Pounds	Pounds
Total freezings	5,744,000	+ 22	+ 81	4,716,000	3,170,000
Important Items:					
Cod:					
Whole	93,000	- 28	-	130,000	93,000
Fillets	1,201,000	+ 77	+ 56	680,000	770,000
Haddock:					
Whole	90,000	+ 91	+ 53	47,000	59,000
Fillets	471,000	+	+185	57,000	165,000
Halibut	222,000	- 44	- 19	395,000	274,000
Salmon	95,000	- 77	- 74	419,000	366,000
Sea herring	2,859,000	+ 49	+384	1,919,000	591,000
Whitefish	30,000	+131	- 35	13,000	46,000
Frozen smoked fish					
Total freezings	672,000	- 36	+ 4	1,049,000	649,000
Important Items:					
Finnan haddie (haddock)	61,000	- 69	- 76	195,000	253,000
Fillets of cod, haddock, etc.	508,000	- 9	+104	557,000	249,000
Sea herring kippers	90,000	- 67	- 39	270,000	147,000

CANADIAN FROZEN FISH STOCKS ON MARCH 1 TOTAL 19,363,000 POUNDS

Stocks of frozen fresh fish in Canadian cold-storage warehouses on March 1 totaled 19,363,000 pounds, according to the Dominion Bureau of Statistics. This represented a drop of 6 percent compared with February 1 and 8 percent compared with March 1, 1944. Haddock fillets, sea herring, tullibee, and whitefish were the only important items held in greater quantity than on February 1. Among items exhibiting declines, salmon and cod stocks showed the most important decreases.

Canadian Cold-storage Holdings

Item	March 1, 1945	March 1 compared with Feb.1,1945	March 1 compared with Mar.1,1944	Feb. 1, 1945	March 1, 1944
Frozen fresh fish	Pounds	Percent	Percent	Pounds	Pounds
Total holdings	19,363,000	- 6	- 8	20,702,000	21,151,000
Important Items:					
Cod:					
Whole	1,141,000	- 43	-35	1,992,000	1,768,000
Fillets	1,299,000	- 23	-48	1,684,000	2,503,000
Haddock:					
Whole	130,000	- 16	-60	155,000	327,000
Fillets	488,000	+259	+47	136,000	331,000
Halibut	2,587,000	- 10	+72	2,883,000	1,507,000
Mackerel	565,000	- 33	+28	846,000	443,000
Salmon	3,027,000	- 25	-25	4,017,000	4,036,000
Sea herring	7,686,000	+ 38	+87	5,564,000	4,103,000
Pickerel	84,000	- 32	-81	123,000	439,000
Tullibee	210,000	+ 20	-71	175,000	735,000
Whitefish	492,000	+ 2	-59	483,000	1,200,000
Frozen smoked fish					
Total holdings	1,323,000	- 10	-11	1,465,000	1,486,000
Important Items:					
Finnan haddie (haddock)	149,000	+ 19	-52	125,000	312,000
Fillets of cod, haddock, etc.	646,000	+ 7	+96	601,000	329,000
Sea herring kippers	426,000	- 31	-39	619,000	702,000

Canned and Cured Fish Trade

TWO-MONTH CALIFORNIA TUNA PACK EQUAL TO 1944 WHILE MACKEREL PACK DROPS 30 PERCENT

The pack of tuna by California canners during February exceeded by 76 percent the pack in January, but was 4 percent under February 1944, according to information released by the California Division of Fish and Game. The pack totaled 111,027 standard cases compared with 63,024 cases packed during January and 115,400 cases in February 1944. Yellowfin tuna accounted for two-thirds of the production. The total pack for the first two months of 1945 amounted to 174,051 cases, exceeding that of the corresponding period in 1944 by one percent.

The February mackerel pack amounted to 7,718 cases, compared with 51,120 cases canned in January and 14,450 cases canned in February 1944. The two-month pack for 1945 was 58,838 standard cases, a decrease of 30 percent from 1944.

California Pack of Tuna and Mackerel--Standard Cases*

Item	February 1945	January 1945	February 1944	Two mos. ending with February-- 1945	1944
	Cases	Cases	Cases	Cases	Cases
Tuna:					
Albacore	41	1,407	201	1,448	207
Bonito	90	1,400	524	1,490	528
Bluefin	5,454	-	12	5,454	14,725
Striped	10,749	9,062	20,965	19,811	27,641
Yellowfin	74,027	40,566	59,064	114,593	71,488
Yellowtail	561	21	323	582	323
Flakes	20,105	10,568	33,787	30,673	57,396
Tonno style	-	-	524	-	524
Total	111,027	63,024	115,400	174,051	172,832
Mackerel	7,718	51,120	14,450	58,838	84,444

*Standard cases of tuna represent cases of 48 7-ounce cans, while those of mackerel represent cases of 48 1-pound cans.

ONLY 6,600 CASES OF SHRIMP PACKED IN FEBRUARY

Declining seasonally, the pack of shrimp by packers operating under supervision of the Food and Drug Administration totaled only 6,599 standard cases in February, according to the New Orleans Market News office. This brought the total for the canning season to 407,988 cases, 26,659 cases ahead of the 1943-44 season to the corresponding date.

Wet and Dry Pack Shrimp in all Sizes in Tin and Glass--Standard Cases*

MONTH			SEASON		
1945 Jan.28-Mar. 3	1945 Dec.31-Jan.27	1943 Jan.30-Mar. 4	1944-45 July 1-Mar. 3	1943-44 July 1-Mar. 4	5-yr.-average July 1-Feb.28
6,599	19,569	243	407,988	381,329	629,972

*All figures on basis of new standard case--48 No. 1 cans with 7 oz. per can in the wet pack and 6½ oz. per can in the dry pack.

1945-46 QUOTAS FOR CANNED FISH DELIVERIES TO U. S. ANNOUNCED MARCH 26

Canners of salmon, pilchards, Atlantic sea herring, Atlantic mackerel, and Pacific mackerel, during the period April 1, 1945 to March 31, 1946, inclusive, will be required to deliver to the Government 80 percent of their pack, the War Food Administration announced March 26 in issuing Amdt. 8 to WFO-44. The new percentages are contained in Amdt. 8 to WFO-44, which restricts domestic deliveries of canned fish. The action by the WFA is based on increased Government, military, and war needs for canned fish during the 1945-46 pack year.

During the 1944-45 pack year, WFA reserved from 45 to 55 percent of the canned sea herring and canned Atlantic mackerel, from 60 to 70 percent of the canned salmon, and from 45 to 100 percent of the canned pilchards and canned Pacific mackerel. Except for the change in these percentages to 80 percent of each species, the order is practically the same as that in effect for the period ending March 31, 1945.

Under the new amendment, if any canner's 1945 pack of canned fish of any class is less than 12,000 pounds, he may consider such canned fish as part of his 1945 pack of canned fish of any other class. This quantity was 4,800 pounds under the order in effect until March 31, 1945.

The new amendment also contains a provision, which prohibits canners from delivering to the civilian trade, any portion of the pack until they have delivered to the Government the corresponding Government portion of their quota.

The entire U. S. production of canned fish during the 1945-46 pack year is expected to amount to about 676 million pounds. Of these, 545,150,000 pounds are covered by the new amendment to WFO-44, consisting of 278,400,000 pounds of canned salmon, and 266,750,000 pounds of pilchards, mackerel, and herring. The result of the order will therefore be to reserve for the Government 436,120,000 pounds of canned fish, the remainder of these species to be available for civilian consumption.

REPORTS BY FISH CANNERS REQUIRED

Canners of fish must continue to file weekly and seasonal reports during the 1945-46 packing season, the War Food Administration announced March 27. Continuation of these reports during the pack season--April 1, 1945 to March 31, 1946, inclusive--is provided in Amdt. 5 to WFO-44-1.

Each canner must continue to report each calendar week the quantity and class of fish packed by him. Such reports are to be submitted not later than four days after the last day of the week. A report showing the total quantities and classes of fish packed is required within 15 days after the last day of the packing season.

GENERAL CONTRACT CONDITIONS FOR CANNED FISH PURCHASES EFFECTIVE APRIL 1

The War Food Administration, Office of Supply (CCC), published in early March Form PBT-401, effective April 1, to supersede Form SCB-64A, used in 1944. The new form sets forth general conditions to govern purchases of canned fish by WFA in 1945. Excerpts follow:

1. QUANTITY: The Contractor, a canner of fish under the provisions of War Food Order No. 44, agree to deliver to the Commodity Credit Corporation, (hereinafter referred to as CCC) the quantity established as the Contractor's quota of fish to be delivered to Governmental agencies under the provisions of War Food Order 44 in effect April 1, 1945, and any amendments thereto. Irrespective of any reductions in the quota to be delivered by the Contractor under War Food Order 44, the CCC at the Contractor's option, agrees to purchase at least 30 percent of the seller's pack (or such lesser percentage as Contractor may tender), of each class of fish designated in War Food Order 44 as amended, packed between April 1, 1945 and March 31, 1946.

2. PRICES: The price to be paid to Contractor for fish delivered to CCC hereunder shall be as follows:

   (a) The ceiling price for the appropriate species, can size, pack and grade as established by the Office of Price Administration for sales to Governmental agencies in effect on the date of delivery. If, at any time, during the life of the Contract, there ceases to be a ceiling price for the appropriate species, the last applicable ceiling price shall be the purchase price for the Contractor's pack delivered thereafter in accordance with paragraph 1. above.

   (b) From the price determined pursuant to (a) above there shall be deducted any cash discount established by the Office of Price Administration applicable to sales to Governmental agencies. Such cash discounts shall be deducted by the CCC for payment by check dated within the time specified after the date of receipt, by the designated regional finance office of the War Food Administration, of a properly executed and documented claim.

   (c) Where special packing, special cans, or export packaging are required, the Contractor may add to the applicable price determined pursuant to (b) above, the costs permitted by the Office of Price Administration at the rate set forth in the Contractor's offer. If the special packing or export packaging costs change during the life of this Contract, the CCC agrees to pay the increased costs as permitted by the Office of Price Administration regulations

and in the event the costs decrease, the Contractor agrees to accept less than the rate stated to the extent that such costs are less than the rate stated in the offer.

(d) CCC may designate the quantity or quantities of fish which shall be packed in export packaging or special cans and may decrease the quantity or quantities so designated at any time. If CCC decreases the quantity of fish to be packed in export packaging or if War Food Order 44 is amended to reduce the quota of fish which may be delivered by the Contractor to Governmental agencies, CCC shall reimburse the Contractor for added costs for the export packaging material or special cans acquired by the Contractor pursuant to such designation by CCC and not used, because of such reduction, for packing fish to be delivered pursuant to this contract, at the rate set out in the offer; Provided, That in no event shall CCC reimburse the Contractor for packaging material acquired, but not used, which is in excess of a quantity of packaging material necessary to pack in export packaging the Government quota of its pack of fish as provided in War Food Order 44, as in effect on April 1, 1945.

3. DELIVERY: The Contractor, within the time specified in the offer, after packing a sufficient quantity of fish to yield at least a minimum carload, as prescribed by the Office of Defense Transportation Orders and Permits, shall, after inspection, tender such lot for delivery to CCC on a form supplied by CCC, "Notice of Tender of Delivery." It is understood that within 10 days after receipt of Contractor's "Notice of Tender of Delivery," the CCC will issue or cause to be issued shipping instructions for prompt delivery and Contractor shall deliver fish in accordance with shipping instructions. Contractor shall deliver fish f.o.b. cars, at the shipping point or points indicated in his Tender of Delivery, or at the option of CCC f.c.b. trucks or storage at the point previously approved by CCC and indicated in the Tender of Delivery. However, if CCC fails to furnish shipping instructions within the period provided above, the Contractor at his option, may at his own expense place the fish in a public warehouse approved by the CCC for the account of the CCC, and shall immediately furnish appropriate public warehouse receipts to CCC indicating that the delivery has been made to the designated warehouse. The date of such receipt constitutes the date of delivery. If ceiling prices at any time prior to the end of the stipulated delivery period become unsatisfactory to Contractor, the CCC agrees, upon Contractor's written request to extend Contractor an additional sixty (60) days in which to make further tender of delivery.

4. TENDER OF DELIVERY: On a form to be supplied to Contractor by the CCC, "Notice of Tender of Delivery," Contractor shall indicate the availability for delivery. Nothing inserted or included in this form shall be construed as amending or altering the terms and conditions of the Contract. Contractor may withdraw his "Notice of Tender of Delivery" by notice in writing received by CCC prior to the date of shipment or delivery.

5. RECORDS: For the purpose of determining total pack if Contractor exercises option under (1) above, CCC shall have the right at any time to examine Contractor's books, records, accounts, papers and correspondence and such books, records, accounts, papers and correspondence shall be made available to CCC upon request.

6. STANDARD CONTRACT CONDITIONS: Contractor agrees to comply with Standard Contract Conditions, Form FDA-474, except that conditions 6, 7, and 8 thereof shall not apply.

7. ASSIGNMENT: The Contract may be assigned by CCC at any time, in whole or in part, to any department or agency of the United States and may be reassigned by any such assignee to any other such department or agency. The assignor will notify Contractor promptly of any such assignment. After the receipt of such notice, Contractor shall have no further recourse to assignor except as to that portion of the contract which has not been assigned or which has been performed prior to assignment. Contractor agrees to label and mark Commodity and its containers according to instructions of any such assignee. In the event that any assignee requires Contractor to alter labels or markings on Commodity or its containers after the labels or markings prescribed by CCC or its assignee have been made or attached, the assignee ordering the change will pay the Contractor the cost of changing such labels or markings; the cost of such change will be determined by the Contractor and such assignee.

8. CONVICT LABOR: The Contractor, in the performance of this Contract shall not employ any person undergoing sentence of imprisonment at hard labor which has been imposed by any court of the several States, Territories, or Municipalities having criminal jurisdiction.

WFA ASKS FOR OFFERS OF CANNED ALASKA SALMON

In Announcement Awd-423, the Office of Supply, War Food Administration, announced on March 26 that it will now receive offers for the sale of canned Alaska salmon required to be set aside in 1945 pursuant to WFO-44. Purchases will be made by negotiated contracts executed in the name of the Commodity Credit Corporation. The contract terms and conditions are set forth in three separate documents: Form FDA-474, Standard Contract Conditions, contains conditions which apply to purchases of all commodities; Form PBT-401, Canned Fish - General Contract Conditions, contains additional terms applying to purchases of canned fish; and Form PBO-423, Canned Alaska Salmon - Offer of Sale, which details the conditions, applying specifically to that type of fish.

Canners who expect to operate during 1945 are requested to submit their proposals on the offer of sale form as soon as practicable. Offers may be submitted prior to August 15, 1945, but attention is called to the fact that the indemnity feature of the contract will not become applicable unless the contracts are signed prior to May 1, 1945. A separate contract shall be executed to cover each canning plant from which canned Alaska salmon will be delivered to the CCC. One contract number will be assigned each operating plant.

Offers must be submitted on prescribed offer Form PBO-423. Notice of acceptance will be given by telegram filed at Washington, D. C., within 15 days after the date of the offer.

Contractor may obtain an AA-2 priority rating on shipping containers by communicating with Mr. C. A. Sihler, Containers and Packaging Branch, Office of Materials and Facilities, War Food Administration, Washington, D. C. The case requirements have been announced and a letter setting forth the export case quota has been sent to each canner.

All ½ pound cans may be labeled with canner's labels. One-pound cans should be tendered unlabeled, except that salmon not acceptable to the U. S. Military Services may be tendered with canner's labels. Excerpts from Form PBO-423 follow:

B. If CCC directs that delivery be made in unlabeled cans, deductions shall be made from the applicable price at the appropriate following rate:

48/1 Tall	$0.11 per case	48/1-2 Flat	$0.08 per case
48/1 Flat	0.10 per case	12/4#	0.04 per case

C. If CCC directs that its own labels be used, it shall supply such labels and deductions shall be made from the applicable price at the appropriate following rate:

48/1 Tall	$0.07 per case	48/1-2 Flat	$0.05 per case
48/1 Flat	0.06 per case	12/4#	0.02 per case

III. SPECIFICATIONS: Fish delivered hereunder shall meet the requirements of "Federal Specifications for Canned Salmon," PP-S-31a (7/29/41), Section B to F, inclusive, provided that except for Reds and Chinooks, Section E-1 of such specifications shall be revised for the purpose of this Contract to delete the words "shall be reasonably free from watermarking" and insert in lieu thereof, the words "Watermarking shall be scored only when texture, color of flesh, amount of oil, odor, and flavor have been affected."

All fish delivered hereunder shall conform in every applicable respect to the requirements of the Federal Food, Drug and Cosmetic Act and amendments and regulations thereunder.

IV. PACKAGING AND MARKING:

A. Cans: 1. If cans are manufactured from tinplate lighter than 1.25 hot dipped plate, all parts of such cans manufactured from such plate shall be inside and outside enameled. At the time of delivery, cans shall be sound and clean, free from rust and serious dents.

PURCHASES OF CANNED RIVER HERRING REQUESTED

In order to meet definite supply needs, the War Food Administration on March 29, in Announcement Awd-440, announced contemplated purchases by the Commodity Credit Corporation of a quantity of canned river herring (alewives) from the 1945 pack, and that offers for the sale of this commodity may now be submitted.

Offers must be submitted on prescribed Offer Form PBO-440 at any time prior to August 15.

The price to be inserted in the offer should not exceed the Office of Price Administration ceiling price on sales to Government agencies as established in MPR-396 (Canned Atlantic Sea Herring and Alewives) as amended. The additional cost of export packaging required under the contract should be shown separately and should be computed as provided in OPA Supplementary Order No. 106.

Contractor may obtain an AA-2 priority rating on shipping containers by communicating with Mr. C. A. Sihler, Containers and Packaging Branch, Office of Materials and Facilities, War Food Administration, Washington, D. C.

Further information with respect to this program may be obtained from M. W. Wallar of the Washington office of WFA.

Excerpts from conditions listed in Announcement Awd-440 follow:

In submitting an offer to sell, the terms and conditions of this announcement and those set forth in "Standard Contract Conditions" (Form FDA-474) except items 6, 7, and 8 thereof, shall become a part of the offer to sell and upon acceptance by the CCC, the offer and acceptance will constitute a valid and binding contract.

SPECIFICATIONS: Fish shall be firm, of good appearance and well cleaned. Cans shall be packed as full as practicable. In round cans the length of the fish shall be packed parallel to the side of the can and the can may not contain more than two pieces of the tail-cut of the fish. The No. 300 (300x407) can having a net content of 15 ounces shall contain a drained weight of not less than 12½ ounces. Cans having net contents of 14 ounces shall contain drained weight of not less than 11¼ ounces. Cans having a net content of 20 ounces shall have a drained weight of not less than 16½ ounces. Each can shall contain not more than seven (7) fish. The fish shall be packed natural style unless otherwise specified by the CCC. The cans shall have not less than four inches of vacuum.

For the purpose of these specifications, the following definitions shall apply:

1. The term "natural" means without the addition of any condiment except salt or brine which may not contain more than two (2) percent vinegar, but may have added oil of the same species of fish.
2. The term "net content" means the total weight of the fish and liquid in the can.
3. The term "well cleaned" means that the heads and tails shall be removed; the fish shall be practically free from scales (i.e., scales shall not cover more than five (5) percent of the surface area) and practically free from entrails. The body cavity shall be slit.
4. The term "drained weight" means the weight of the fish after they have been emptied from the can following sterilization and after being allowed to drain for two minutes over a sieve of not less than eight-inch diameter, containing eight meshes to the inch (0.097 inch per perforation).

A lot shall be considered as meeting specifications if not more than one-sixth of the containers in a lot fail, in some respect, to meet requirements of the specifications: Provided, that none of the containers which may fail to meet the specifications shall fail to meet the requirements of the Federal Food, Drug, and Cosmetic Act of June 25, 1938, as amended, and regulations pursuant thereto in effect on date of delivery.

PACKAGING: a. Cans: Cans shall be inside enameled unless otherwise directed by CCC. If all or any component part of the cans are manufactured from tinplate lighter than 1.25 hot dipped plate the inside and outside of such cans or component part shall be enameled. Cans shall be sound and clean, free from rust and serious dents at time of delivery.

b. Shipping Containers: Shipping containers shall be boxes meeting the requirements of Type V3c, V3s or wirebound wood or nailed wood as described in Form PSC-1742-E, "Export Packaging Specifications," unless otherwise directed by CCC. Cases containing 48 cans shall be strapped with 2 girthwise and 2 lengthwise metal straps. Cases containing 24 cans shall be strapped with 2 crosswise metal straps.

c. Labeling: Cans shall be labeled or lithographed with Contractor's regular commercial label or marking unless otherwise directed by CCC.

d. Marking: Each shipping container shall be marked to show the name of the Contractor, Commodity, Commodity Code, Contract Number, net weight of can and number of cans per case, gross weight and cubic displacement of case, and such other markings as may be prescribed by CCC. If shipment or transfer of title is made to any branch of the U. S. Military Services, the Commodity Code and the CCC Contract Number should be omitted.

CANNED SEA HERRING AND CANNED MAINE SARDINES OFFERS REQUESTED

The Office of Supply (CCC), War Food Administration, as the designated agency to purchase all Government requirements of canned sea herring and canned Maine sardines, announced on March 6, in Announcement Awd-401, that it will receive offers for the sale of such canned fish required to be set aside in 1945, pursuant to WFO-44.

Purchases will be made by negotiated contracts executed in the name of the Commodity Credit Corporation. The contract terms and conditions are set forth in three separate documents: Form FDA-474, "Standard Contract Conditions," contains conditions which apply to purchases of all commodities; Form PBT-401, "Canned Fish - General Contract Conditions," contains additional terms applying to purchases of all species of canned fish; and Form PBO-401, "Canned Sea Herring and Canned Maine Sardines - Offer of Sale," which details the conditions applying specifically to those types of fish.

Canners who expect to operate during 1945 are requested to submit their proposals as soon as practicable, but in any case not later than April 15, 1945. It is intended that one contract will cover the entire quantity of canned sea herring and canned Maine sardines purchased for delivery to Government agencies during the 1945 packing season and only one contract number will be assigned to each canner.

Offers must be submitted on prescribed Offer Form PBO-401, in an original and four (4) signed copies, and must be mailed to: Contract Development Section, Procurement and Price Support Branch, Office of Supply (CCC), War Food Administration, Washington 25, D. C., at any time prior to but not later than April 15, 1945.

It is preferred that both the 9-ounce sardines and the sea herring be packed in tomato sauce, but natural style will be accepted. If packed in tomato sauce there shall be added not less than one-half gallon of tomato sauce, having a specific gravity of 1.045, to a case of 48/300s (300x407) or 48/1 oval cans and proportional quantities in other size cans. All tomato sauce used must comply with the applicable requirements of the Federal Food, Drug and Cosmetic Act and amendments and regulations thereunder.

It is preferred that all of the deliveries to the Government of 3¼-ounce Maine sardines be packed in oil. Certificates for obtaining ex-quota oil as required by WFO-42 will be furnished on written request to the Washington office.

Contractor may obtain an AA-2 priority rating on shipping containers by communicating with Mr. C. A. Sihler, Containers and Packaging Branch, Office of Materials and Facilities, War Food Administration, Washington 25, D. C., Telephone: REpublic 4142, Extension 4373.

The "Notice of Tender of Delivery," Form PBO-401a, is a revision of Form SCP-1861A, but it will be used for the same purpose and in the same manner as the old form.

Further details with respect to this program may be obtained from M. W. Wallar of the WFA at Washington, whose telephone number is REpublic 4142, Extension 3559, except that questions pertaining to shipping should be referred to Kermit J. St. Peter, Room 3, Post Office Building, Eastport 9, Maine, or to the Transportation and Warehousing Branch, Office of Supply, War Food Administration, Washington 25, D. C., Telephone: REpublic 4142, Extension 5448.

Excerpts from Form PBO-401 follow:

1. PRICES:

(b) If cans are inside and outside enameled, the applicable price shall be increased at the appropriate following rate:

48/1 oval	$0.096 per case	48/9-oz.	$0.041 per case
48/300	0.060 per case	24/300	0.030 per case

If any component parts of the No. 300 cans are manufactured from plate other than 1.25 hot dipped tinplate, such parts shall be inside and outside enameled and the applicable price shall be increased at the appropriate following rate per case:

	48/300	24/300
Enameled Ends, Plain Body -	$0.024	$0.012
Enameled Body, Plain Ends -	0.036	0.018

3. SPECIFICATIONS: The fish delivered hereunder shall meet the following specifications:

A. Sea Herring: Fish shall be reasonably firm, of good appearance and well cleaned. Cans shall be packed as full as practicable. In round cans the length of the fish shall be packed parallel to the side of the can, but the can may contain not more than two pieces of the tail-cut of the fish. In oval and other flat type cans the length of the fish shall be packed parallel to the bottom of the can. The average net content of the No. 300 (300x407) can or the No. 1 oval can shall be not less than 15 ounces, with the average drained weight of the official inspection sample not less than 12½ ounces and shall contain not more than nine (9) fish. If other sizes of cans are used, the net content and drained weight shall be in the same proportion, as the relative size of the can. The fish may be packed natural or with added oils, tomato sauce, or other sauces as may be specified by CCC. The No. 300 (300x407) size cans shall have not less than four inches of vacuum and the No. 1 oval cans shall have not less than two inches of vacuum.

B. Sardines: Fish shall be of good quality and shall be prepared and canned under strictly sanitary conditions in accordance with sound commercial practices. Fish shall be cleaned and trimmed, with the heads and scales removed, shall be practically unbroken and shall be free from feed and objectionable material. Cans shall be packed neatly and well filled with fish. The ends of the cans shall be flat or concave. The ¼-size and ¾-size cans shall contain not less than four (4) fish. There shall be added to the fish at the time of packing such oils or sauces as may be specified by CCC. The ¼-size cans shall contain not less than 3¼ ounces net weight; the ¾-size cans shall contain not less than 9 ounces net weight.

C. Definitions: For the purpose of the above specifications, definitions are:

(1) The term "Natural" means without the addition of any condiments except salt, or brine which may contain up to 2% vinegar, but may have added oil of the same species of fish.

(2) The term "Net Content" means the total weight of the fish and liquid in the can.

(3) The term "Drained Weight" means the weight of the fish after they have been emptied from the can following sterilization and after being allowed to drain for two minutes over a sieve of not less than 8-inch diameter, containing eight meshes to the inch (0.097 inch per perforation).

(4) The term "Well Cleaned" means that the heads and tails shall be removed, the fish shall be practically free from scales (i.e., scales shall not cover more than five (5) percent of the surface area) and shall be reasonably free from feed and objectionable material. The wall of the body cavity shall be slit; when six or less fish are packed in a #300 can or a #1 oval can.

(5) The term "Official Inspection Sample" means the cans drawn for inspection by the designated sampler of the Office of Supply.

D. A lot shall be considered as meeting specifications if not more than one-sixth of the containers in the lot fail in some respect to meet the requirements of the specifications; provided, that none of the containers which may fail to meet the specifications shall fail to meet the requirements of the Federal Food, Drug and Cosmetic Act and Amendments and regulations thereunder.

WFA SUPPLEMENTS SEA HERRING AND MAINE SARDINES CAN SPECIFICATIONS

The Office of Supply, War Food Administration, has indicated in the past that purchases of Maine sardines would be limited to standard pack 100/¼-pound cans, unwrapped, keyless, and with unscored can covers.

It is now recognized that because of the high percentage of the Maine sardine pack required by the Government, canners during the time that available fish is too small for the usual standard pack, may not be able to utilize their packing facilities to the fullest extent unless their deliveries to the Government include a percentage of special pack items. Therefore, canners are now advised that canned Maine sardines meeting the following specifications will be accepted:

A. 100/$\frac{1}{4}$s decorated tops (can covers scored for convenience in opening) without keys and not wrapped or in individual cartons, each can containing not less than eight (8) fish, except that in any lot tendered for delivery not more than 10% of the cans may contain not less than five (5) fish, packed in oil, otherwise meeting the terms and conditions of Contracts written on Form PBO-401.

B. The price on this style pack is fixed in Amendment No. 5 to MPR-184 as $5.055 a case basis domestic shipping containers, less 2$\frac{1}{2}$ percent on sales to Government agencies and less 1$\frac{1}{2}$ percent cash discount in accordance with Amendments 2 and 3, MPR-184 plus the usual allowance for enamelling on cans, strapping and export type cases.

Tenders of this style pack may not exceed 25 percent of a canner's total tenders of delivery to CCC during April and May 1945. Notice of Tender of Delivery (Form PBO-401a) should clearly indicate the style of pack offered. Code No. 72 65 117 (Domestic Pack) or 72 65 127 (Export Pack) shall be shown on all shipping containers used for this style pack. Export cases will be required on all shipments unless specific prior arrangements have been made with CCC.

It is suggested that canners who expect to take advantage of this announcement request that their contracts be amended to include sections A and B of this supplement.

The foregoing action was taken in Supplement No. 1 to Announcement Awd-401 issued April 7.

CANNED SEA HERRING AND MAINE SARDINE PURCHASE NOTICE AMENDED

On March 19, War Food Administration's Offer of Sale Form PBO-401 was amended (Amendment No. 1) to include the following:

> It is understood and agreed that this offer covers the sale of Canned Sea Herring and Canned Maine Sardines to CCC which are packed during the period beginning April 1, 1945, and ending March 31, 1946.
>
> In Paragraph 1. PRICES sub-paragraph (a) the can size 48/200 should read "48/300."
>
> In Paragraph 3. SPECIFICATIONS sub-paragraph (A) the third sentence should read "In round cans the length of the fish shall be packed parallel to the side of the can but the can may contain not more than two pieces of the tail-cut of the fish."

If offer forms have not been submitted, the WFA announced, the canner may insert after the colon in the first paragraph of Offer Form PBO-401 "and Amendment Number 1 thereto." If offer forms have been submitted, a statement that the offer is subject to Amendment No. 1 to Offer Form PBO-401 must be submitted to Contract Development Section, Procurement and Price Support Branch, Office of Supply (CCC), War Food Administration, Washington 25, D. C. No contract will be entered into unless this amendment is incorporated.

PAPER ON PRESERVATION OF SEAFOODS PUBLISHED

The Seafoods Laboratory of the Oregon Agricultural Experiment Station, located at Astoria, has recently published a 17-page pamphlet discussing procedures for preserving certain seafood products. Items discussed are clams, crabs, oysters, smelt, tuna, salmon, and soupfin shark. Procedures covered have been worked on at the Laboratory and are described with the express purpose of helping to supply additional protein foodstuffs during our national emergency. Preservation of Seafoods, by Dr. Edward W. Harvey, is available from the Oregon Seafoods Laboratory, 1236 Taylor Avenue, Astoria, Oregon.

Foreign Fishery Trade

ICELAND'S SEA FISHERIES - 1944

During the last four years, Iceland's production of iced and frozen groundfish and its catch of herring have consistently increased, while the production of salted fish has declined. Figures for the past four years reproduced below are from the Iceland's Statistical Bulletin.

Sea Fisheries of Iceland*

Mode of Preparation	1944	1943	1942	1941
	Pounds	Pounds	Pounds	Pounds
Iced fish	385,902,000	357,747,000	334,872,000	260,848,000
Frozen fish	121,709,000	70,179,000	53,700,000	25,653,000
Stockfish	2,928,000	2,608,000	1,938,000	6,437,000
Canned fish	441,000	366,000	456,000	**
Salted fish	8,159,000	9,004,000	29,584,000	137,582,000
Home consumption	8,799,000	**	**	**
Total groundfish	527,938,000	439,904,000	420,550,000	430,520,000
Herring	489,075,000	401,145,000	319,965,000	212,237,000
Total	1,017,013,000	841,049,000	740,515,000	642,757,000

*Weights are of drawn fish - eviscerated with heads on.
**Not available.

FISHERIES OF NEWFOUNDLAND, 1944

The American Consulate in St. John's, Newfoundland, recently transmitted to the State Department an economic review for 1944. Excerpts concerning the fisheries follow:

The Codfishery:

The catch of codfish salted in the calendar year 1944, by types, was as follows:

Estimated Quantity of Codfish Salted - 1944

Type	Pounds
Deep Sea fishery	11,505,424
Inshore fishery	64,963,808
Labrador fishery	28,896,784
Grand Total	105,366,016

This total compared with the following totals for previous years:

1939 - 117,066,432 pounds 1940 - 98,055,328 pounds 1941 - 93,044,896 pounds
1942 - 78,787,072 " 1943 - 98,524,400 "

The fresh-frozen method of exporting fish has made rapid strides during the war years and is still expanding, with seventeen plants now operating throughout the country. It was given impetus by the withdrawal of the British trawler fleet for war purposes, and Great Britain remains by far the largest market.

The following is a comparative statement of average prices per quintal* paid the fisherman for all grades of dried codfish during the past four years:

Prices of Dried Codfish Paid to Fishermen

	1941	1942	1943	1944		1941	1942	1943	1944
Large merchantable ..	$9.50	$10.50	$14.00	$14.25	West Indian ..	$ 5.00-	$ 6.25-	$ 8.00-	$ 7.00-
Small merchantable ..	8.75	9.75	13.50	13.75	" " ..	5.50	7.00	9.00	8.00
Large Madeira	9.00	10.00	13.00	13.25	Labrador	8.00-	6.25-	9.50-	9.75-
Small Madeira	8.25	9.25	12.50	12.75	"	8.25	8.50	10.00	10.00

NOTE: All figures in Canadian dollars. $1.00 U.S. = $1.10 Canadian.

The following is a comparative statement of the total exports of dried codfish for the fiscal years 1940-44:

Exports of Dried Codfish - Fiscal years 1940-1944

Year	Quintals	Pound Equivalents	Value	Year	Quintals	Pound Equivalents	Value
1940	966,421	108,239,052	$4,764,222	1943 1/	640,984	71,790,208	$8,302,500
1941	947,549	106,125,488	6,052,937	1944	650,018	72,702,016	9,671,616
1942	793,342	88,854,304	8,436,865				

1/ Nine months ended March 31. Previous fiscal years ended June 30, 1944 - full year ended March 31.

The war, of course, has temporarily dislocated important markets, such as Greece and Italy. It is believed that with the liberation of the occupied countries of Europe will come a revival of former demands for substantial quantities of salt bulk codfish. Brazil, which in 1943 did not make application to the Combined Food Board for an allocation, did so in 1944 and was granted a quantity, the greater part of which is being supplied by Newfoundland. It is hoped that this will herald the reopening and development of Brazil as an important market for Newfoundland salt codfish to an extent not less than that enjoyed some years ago. Pre-war shipments of several millions of pounds to Brazil dropped to nothing in 1943, and amounted to 2,057,888 pounds in 1944.

*One quintal equals 112 pounds.

Principal markets during the present war-period have been Portugal, Jamaica, Puerto Rico, Spain, and sundry islands of the West Indies.

On the supply side, the 1944 fisheries season was handicapped - as might be expected - by a scarcity of bait, and a shortage of engines, boats, and equipment. The present outlook is that similar shortages will be noticeable in 1945, except that the supply of small marine engines has improved in recent months.

With respect to the future outlook of the codfishery: the post-war era will present a situation which has already given rise to much speculation. At present, the mechanism set up to handle world food supplies makes the fish business a simple matter of routing shipments as directed, but when all regulations are suspended, the position will be entirely different. Normally, salt codfish is well down the list of desirable food products in world markets. Deflation is bound to reduce the price of codfish--and local production costs have always been comparatively high. Competition is likely to be keen when producing countries now out of the picture swing back into action. All things considered, Newfoundland exporters are not unmindful of the slump which hit the industry immediately after the last war. The swing to fresh frozen fish offers interesting possibilities, but the principal market of Great Britain is but a temporary outlet which should disappear at the end of the war. The United States is expected to intensify development of its own fisheries on both the Atlantic and Pacific Coasts; nevertheless, it is to this prospective market of 135 million people that most fresh fish advocates look with optimism for some solution to the problems which will accompany a return to peacetime pursuits. The Newfoundland Government has already officially declared its intention to assist reorganization of the fresh fish industry in the immediate post-war era by an investment of $4,000,000, but full details of this proposed scheme are not yet available.

Subsidiary Fisheries:

Exports of Herring, Lobster, and Salmon - Fiscal Years 1941-1944, Inclusive1/

Type of Fish	1941	1942	1943	1944
Herring	$372,915	$566,655	$590,494	$1,283,005
Lobster	197,461	257,631	58,409	271,624
Salmon	510,017	333,242	97,157	349,259

1/ Fiscal years 1941, 1942 ended June 30; 1943 - nine months period ended March 31; 1944 - full year ended March 31.

Fish Oils:

During the calendar year 1944, common cod oil, cod liver oil, whale oil, and herring oil have been the principal fish oils produced and exported from Newfoundland.

Exports of Fish Oils from Newfoundland

Type of Fish Oil	1943	1944
Cod Liver Oil	331,088	314,538
Poultry Oil	4,550	10,123
Common Cod Oil	616,197	476,876
Herring Oil	59,029	405,937
Seal Oil	13,385	31,464
Whale Oil	57,555	359,805
Totals	1,081,804	1,598,743

NOTE: All figures in imperial gallons. One imperial gallon = 1.20094 gallons U. S.

THREE NEW FILLETING PLANTS PLANNED FOR SASKATCHEWAN

The following excerpt is made from the Saskatchewan News Letter of March 29, issued by that Province's Bureau of Publications:

> Three fish filleting plants will be erected in Saskatchewan's northland, in place of the one originally planned, Natural Resources Minister J. L. Phelps told the legislature when estimates for his department were under consideration. Further investigation had shown the need for such a step. "We may have to have a large number of plants scattered throughout the north," he added.
>
> In addition to the Lac la Ronge plant, others will be built, in the Pelican Narrows district and in the Beaver Lake area. They would cost, respectively, about $25,000 each, while the Lac la Ronge plant would cost more. The latter would be used as an experimental plant, with a fertilizer plant attached.
>
> Outlining other industrial projects, Mr. Phelps said a cold-storage plant at Prince Albert, in connection with the fish filleting plants, was a possibility.

GROUNDFISH IMPORTS 3,909,000 POUNDS TO MARCH 3

Imports of fresh and frozen cod, haddock, hake, pollock, cusk, and rosefish, filleted, skinned, boned, sliced, etc., for the 1945 calendar year to March 3 totaled 3,908,681 pounds, the Treasury Department's Bureau of Customs announced March 14. Imports for the first two months of 1944 totaled 3,136,694 pounds. The established quota for 1945 is 15,000,000 pounds, or 15 percent of the average apparent consumption of fresh and frozen cod, haddock, hake, pollock, cusk, and rosefish, filleted, etc., for the past three years.

FOREIGN TRADE IN MARINE FATS

The size of foreign trade in marine fats for consumption for the five years 1939 to 1943 inclusive, was shown in the Fats and Oils Situation for March 1945. This publication, issued by the Department of Agriculture, cited the following figures:

Imports For Consumption of Marine Fats, 1939-43

Item	1939	1940	1941	1942	1943
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Cod and cod-liver oil	66,242	19,461	19,005	7,896	17,962
Shark and shark-liver oil	72	488	2,759	1,300	2,986
Other liver oils	-	-	101	11	50
Fish oils	888	230	6,324	8,660	14,288
Whale oil, sperm	19,433	22,257	6,912	1/	1/
Whale oil, other	856	1	418	27	28,381
Seal oil	-	-	362	5,021	4,355
Total, marine	87,491	42,437	35,881	-	-

1/ Publication prohibited by national security regulations.

Exports of Marine Fats, 1939-43

Item	1939	1940	1941	1942	1943
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Fish-liver oils	1/	1/	1/	1/	1,389
Fish oils	2,279	4,149	2,601	8,164	12,743
Whale oil, sperm and other	14,254	-	24	2/	2/
Total, marine	16,533	4,149	2,625		

1/Reported in value only prior to 1943.
2/Publication prohibited by national security regulations.

SPANISH AND PORTUGUESE CANNED SARDINES PURCHASED FOR UNITED NATIONS

In connection with plans now in development for the distribution of canned fish supplies from major exporting countries in the fiscal year 1945-46, the Combined Food Board announced on March 6 that it has recommended for various United Nations the procurement of the exportable surpluses from the 1945 pack of sardines in Portugal and Spain.

Out of an anticipated total export supply of sardines of two million cases in Portugal and one million cases in Spain, the British Ministry of Food has been designated to procure for the United Nations, except the United States, 1,850,000 cases of the Portuguese standard pack (i.e., other than boneless and skinless) and 940,000 cases of the Spanish standard pack. Procurement of these supplies by the British Ministry of Food will represent a continuation of the arrangement in 1944 to insure that maximum supplies from these two sources are secured for the common pool out of which allocations to the United Nations will be made.

The balances of 150,000 cases from Portugal and 60,000 cases from Spain, consisting of the types not procured by the United Kingdom, may be purchased by private importers in the United States.

Maximum sales prices for these sardines by importers in the United States will be established by the Office of Price Administration under its import price regulation, which now recognizes foreign purchase prices not in excess of those in effect in April 1943. Tinplate for the packing of these sardines will be made available at OPA export prices only to importers who agreed not to exceed the foreign purchase prices of sardines specified in the

import authorizations. These specified prices, reflecting the lower cost of tinplate to Portuguese and Spanish packers, will bring foreign purchase prices below those in effect in April 1943.

IMPORTED FISH IN HAWAII PRICED BY OPA

Maximum prices for sales of fish and shellfish imported into Hawaii were established as of February 15 by the Office of Price Administration. This action was taken by issuance of Amdt. 132 to MPR-373, on March 5, 1945. MPR-373 has been quoted in Fishery Market News in July 1943 (p. 13) and March 1944 (p. 28).

The maximum wholesale prices established by this amendment for round, dressed, and cleaned fish and for certain fillets are calculated by adding a mark-up of 25 percent to the sum of the following: base price plus permitted additions established in MPR-364 (Frozen Fish and Seafood); mainland freight to port of exit; 12 percent primary wholesaler's mark-up on the sum of the two preceding items; plus the ocean freight, war risk, and marine insurance. The same method is used in establishing wholesale ceilings on steaks, fillets, shrimp, and prawn, except that the mark-up on those faster moving items is 20 percent.

The pricing method at retail is unchanged with dollars and cents maximum prices being established based on a mark-up of 33-1/3 percent over the newly-established wholesale ceilings.

Excerpts from the new amendment follow:

Maximum Price Regulation 373 is amended in the following respects:

1. Section 20a is amended to read as follows:

SEC. 20a. *Maximum prices for sales at wholesale and retail of imported fish and seafood*—(a) *What this section does.* This section covers sales at wholesale and sales at retail of imported fish and seafood in the Territory of Hawaii. In paragraph (b) below, dollars and cents maximum prices at both wholesale and retail are established for most of the various species of salt water fish, shell fish, and mollusks imported into the Territory. This paragraph also indicates the procedure for determining the maximum prices for any other species of fish and seafood which may be imported.

(b) *Maximum wholesale and retail prices for imported fish and seafood.* (1) Maximum prices for sales at wholesale and retail for imported fish and seafood in the Territory of Hawaii, shall be as follows:

FISH AND SEAFOOD

Name and description	Style of processing	Size	Wholesale maximum price per pound net weight	Retail maximum price per pound net weight
Albacore	Round	All	$0.38	$0.50
Albacore	Steak	All		.70
Bonita	Round	All	.20	.37
Bonita	Steak	All	.35	.42
Butterfish	Round	All	.30	.40
Cod (Black)	Dressed	All	.30	.40
Cod (Black)	Fillets	All	.50	.60
Cod (Black)	Steaks	All	.37	.45
Cod (Eastern)	Fillets	All	.41	.55
Cod (Kippered)			.65	.85
Crab Meat			.28	.30
Halibut	Dressed	10 to 60 lbs	.38	.50
Halibut	Dressed	Under 10 over 60	.35	.47
Halibut	Steaks	All	.48	.60
Herring (Sea)	Round	All	.13	.17
Haddock	Fillets	All	.44	.58
Mackerel	Round	All	.24	.31
Mackerel	Fillets	All	.36	.48
Mullet (Pacific)	Round	Over 2 lbs	.33	.43
Mullet (Gulf or East Coast)	Round	All	.24	.31
Mullet (Pacific)	Steaks	All		.60
Oysters (Eastern Standards)		All	.67	.80
Oysters (Eastern Selects)		All	.71	.95
Oysters (Pacific Coast)		½-½-1 gal	.70	.88
Oysters (Pacific Coast)		Pints and quarts	.75	.95
Perch (Pacific)	Round	All	.27	.35
Pollock	Fillets	All	.32	.43
Porgy	Round	All	.23	.30
Red Snapper	Dressed	All	.48	.62
Red Snapper	Cleaned	All	.38	.50
Red Rock Cod	Fillets	All	.42	.57
Rosefish	Fillets	All	.44	.58
Salmon (Pacific Silver)	Dressed	All	.38	.50
Salmon (Pacific Silver)	Steak	All	.47	.60
Salmon (Pacific Fall)	Dressed	All	.31	.41
Salmon (Pacific Fall)	Steak	All	.39	.49
Salmon (Pacific King)	Dressed	12¾ lbs. and up	.47	.62
Salmon (Pacific King)	Dressed	Under 12¾ lbs	.43	.57
Salmon (Pacific King)	Steak	All	.55	.69
Salted Fish or Dry Salted Fish (not including Mild Cured Fish).		All	(1)	(2)
Sardines (California)			.18	.25
Sea Bass	Dressed	All	.40	.53
Sea Bass	Steak	All		.63
Sole or Flounder	Fillets	All	.47	.63
Smelts		All	.21	.29
Squid (Pacific)		All	.22	.30
Whiting	Skinned or fillets	All	.33	.44

[1] 20% over landed cost. Net cost is the amount you paid your supplier after deducting all discounts and allowances except discounts for prompt payment not exceeding 2%.
[2] 40% over net cost. Net cost is the amount you paid your supplier after deducting all discounts and allowances except discounts for prompt payment not exceeding 2%.

SHRIMP AND PRAWN

Style of processing	Size (Count)	Wholesale maximum price per pound net weight	Retail maximum price per pound net weight
Head on	Under 9	$0.38	$0.48
Head on	9 to 12	.28	.48
Head on	12 to 15	.23	.41
Head on	15 to 18	.20	.35
Head on	18 to 26	.28	.35
Head on	26 to 40	.25	.33
Head on	40 and over	.24	.30
Headless	Under 15	.60	.75
Headless	15 to 21	.54	.67
Headless	21 to 26	.49	.61
Headless	26 to 31	.44	.55
Headless	31 to 43	.41	.51
Headless	43 to 66	.38	.48
Headless	66 and over	.35	.44
Peeled	Under 18	.71	.89
Peeled	18 to 26	.65	.81
Peeled	26 to 32	.58	.73
Peeled	32 to 39	.53	.66
Peeled	39 to 52	.49	.61
Peeled	52 to 81	.45	.56
Peeled	81 and over	.41	.51
Peeled and veined	Under 30	.81	1.00
Peeled and veined	30 to 39	.72	.90
Peeled and veined	39 to 34	.66	.82
Peeled and veined	34 to 41	.60	.75
Peeled and veined	41 to 57	.56	.70
Peeled and veined	57 to 87	.51	.64
Peeled and veined	87 and over	.47	.59
Headless and veined.	Under 16	.65	.80
Headless and veined.	16 to 22	.58	.73
Headless and veined.	22 to 28	.53	.66
Headless and veined.	28 to 33	.49	.60
Headless and veined.	33 to 46	.45	.56
Headless and veined.	46 to 70	.42	.52
Headless and veined.	70 and over	.38	.46

NOTE: 1½¢ per pound for sales at wholesale and 2¢ per pound for sales at retail may be added to the above listed maximum prices in the case of sales of imported shrimp and prawn received and sold in containers of one pound or less.

"SMOKED" AND "MILD CURED" FISH

Name and description	Style of processing	Size	Wholesale maximum price per pound net weight	Retail maximum price per pound net weight
Mild Cured Salmon King or Silver (Select)	Slabs or sides	Over 5 lbs.	$0.82	$0.70
Mild Cured Salmon King or Silver (No. 2)	Slabs or sides	All	.46	.60
Smoked Salmon King of Silver	Slabs or sides	All	.71	.88
Smoked Kippered Salmon King or Chinook	Chunked		.69	.86
Smoked Sablefish (Black Cod or Sable Cod)	Dressed	All	.63	.78
Smoked Haddock Fillets (Finnan Haddie)	Fillets	All	.49	.63

Statistical Summaries

WFA PURCHASES $2,582,000 IN FISHERY PRODUCTS IN FEBRUARY

Canned salmon and pilchards were the leading fishery items purchased by the War Food Administration in February, according to a WFA report released in March. Purchases of these products totaled $2,581,646, of which $1,912,580 was paid for canned salmon and pilchards.

Purchases of Fishery Products by WFA

Commodity	Unit	February 1945		January 1-February 24, 1945	
		Quantity	F.O.B. Cost	Quantity	F.O.B. Cost
FISH			Dollars		Dollars
Herring, canned	Cases	-	-	2,136	10,369
Mackerel, "	"	23,780	121,193	86,387	445,849
Pilchards, "	"	199,435	734,798	498,177	1,912,862
Salmon, "	"	127,908	1,177,782	370,274	3,801,336
Sardines, "	"	35,200	152,038	58,539	253,989
Fish, flaked, "	"	1,050	10,500	4,585	58,553
Total .. "	"	387,373	2,196,311	1,020,098	6,482,963
Fish, dry-salted	Pounds	-	-	1,000,000	160,000
" , smoked	"	-	-	276,800	27,480
Total	"	-	-	1,276,800	187,480
BYPRODUCTS					
Fish meal	"	-	-	60,000	2,325
Oyster shell	"	160,000	640	160,000	640
Oyster shell flour	"	160,000	560	160,000	560
Total	"	320,000	1,200	380,000	3,525
VITAMINS					
Vitamin A fish-liver oil	M Units	1,350,588	384,135	2,450,335	695,153
Grand Total		-	2,581,646	-	7,369,121

WHOLESALE AND RETAIL PRICES

A small rise from mid-January to mid-February in prices consumers must pay for fishery commodities was indicated by figures published by the Bureau of Labor Statistics. The wholesale indexes for all commodities and foods rose slightly, while average retail prices for fresh and frozen and fresh and canned fish showed a general rise. Retail fish prices remained slightly lower than those of February 1944, however.

Wholesale and Retail Prices

Item	Unit		Percentage change from--	
Wholesale: (1926 = 100)		Feb. 17, 1945	Jan. 13, 1945	Feb. 12, 1944
All commodities	Index No.	105.0	+0.3	+1.8
Foods	do	104.8	+0.1	+0.8
		February 1945	January 1945	February 1944
Fish:				
Canned salmon, Seattle:				
Pink, No. 1, Tall	$ per dozen cans	1.970	0	0
Red, No. 1, Tall	do	3.694	0	0
Cod, cured, large shore, Gloucester, Mass.	$ per 100 pounds	13.500	0	+3.8
Herring, pickled, N. Y.	¢ per pound	12.00	0	0
Salmon, Alaska, smoked, N. Y.	do	35.00	0	0
Retail: (1935 = 100)		Feb. 13, 1945	Jan. 16, 1945	Feb. 15, 1944
All foods	Index No.	136.5	-0.6	+1.5
Fish:				
Fresh and canned	do	215.2	+2.4	-0.9
Fresh and frozen	¢ per pound	35.0	+2.8	-1.0
Canned salmon:				
Pink	¢ per pound can	23.5	+2.2	-2.1
Red	do	40.5	+0.5	-4.9

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FISHERY TRADE INDICATORS

(Expressed in Thousands of Pounds)

Item	Month	Latest month	Same month a year ago	Previous month
FRESH FISH LANDINGS				
Boston, Mass.	February	10,102	9,904	9,514
Gloucester, Mass.	do	7,135	5,571	5,011
Portland, Maine	do	833	840	691
Boston, Gloucester, and Portland:				
Cod	do	4,169	3,178	2,756
Haddock	do	6,987	7,580	5,009
Pollock	do	1,451	663	3,120
Rosefish	do	4,166	3,532	3,216
FISH RECEIPTS, CHICAGO1/				
Salt-water fish	do	1,659	1,875	1,936
Fresh-water fish	do	3,101	3,654	2,445
Shellfish, etc.	do	846	514	500
By truck	do	449	1,265	545
By express	do	1,832	1,736	2,202
By freight	do	3,325	3,041	2,131
COLD-STORAGE HOLDINGS2/				
New York, N. Y.:				
Salt-water fish	do	6,546	5,968	8,902
Fresh-water fish	do	820	1,565	846
Shellfish, etc.	do	1,739	1,735	2,366
Boston, Mass.:				
Salt-water fish	do	4,106	6,292	6,594
Fresh-water fish	do	8	34	26
Shellfish, etc.	do	814	1,265	1,080
Chicago, Ill.:				
Salt-water fish	do	1,904	3,049	2,523
Fresh-water fish	do	1,375	3,895	1,624
Shellfish, etc.	do	1,291	934	1,338
United States:				
Cod fillets	March	1,568	1,736	3,431
Haddock fillets	do	623	1,975	1,532
Halibut	do	3,581	2,344	6,447
Mackerel (except Spanish)	do	2,742	3,003	5,811
Croakers	do	495	615	1,148
Rosefish fillets	do	1,202	1,341	1,634
Salmon	do	4,382	4,765	7,847
Whiting	do	3,968	4,280	5,919
Shrimp	do	6,631	6,449	9,012
New England, all species	do	7,049	10,902	12,321
Middle Atlantic, all species	do	14,550	16,634	19,199
South Atlantic, all species	do	4,159	3,723	6,906
North Central East, all species.	do	8,434	16,234	11,949
North Central West, all species.	do	3,136	6,006	4,345
South Central, all species	do	3,541	4,321	5,967
Pacific, all species	do	11,492	12,037	18,121

1/ Includes all arrivals as reported by express and rail terminals, and truck receipts as reported by wholesale dealers including smokers.

2/ Data for individual cities are as of the last Thursday of the month, except those for Boston which are for the last Wednesday of the month. Data on United States holdings by various species and by geographical areas are as of the first of the month.

Note:--Data for the latest month are subject to revision.